THE PALESTINE EXPLORATION FUND.

NOTES AND NEWS.

The Fund has sustained a great loss in the death of the late Archbishop of York. His Grace always took keen personal interest in the conduct of the Society, and for twenty-four years had been its President. His knowledge of Palestine subjects was extensive, as shown in his articles in Smith's "Dictionary of the Bible," and in the work which he edited, called "Aids to Faith." During the years 1869 and 1870 he attended the meetings of the Committee, and advised upon important matters in the beginning of the Society's operations in the Holy Land.

The Archbishop of Canterbury has kindly consented to become the new President of the Fund. His Grace has written the following letter to the Chairman :—

"Lambeth Palace, S.E.

"My dear Sir,—I am greatly honoured by the request of yourself and the Committee that I should accept the Presidency of the Palestine Exploration Fund.

"It gives me very much pleasure to accept the position. I have always felt the greatest interest in the work of the Society, which has, with a steady progress, become so extensive and has so deepened our intelligence of the Bible History.

"I thank you much for the monograph on Lachish.

"Very truly yours,

"(Signed) E. W. Cantuar.

"James Glaisher, Esq."

We regret to announce the death of the Rev. Henry Geary, Vicar of St. Thomas's, Portman Square, who was for more than twenty years one of the lecturers for the Fund. Mr. Walter Besant writes respecting him:—

"I have known Henry Geary for many years, ever since we were students together in the same year at King's College, London. He was the classical scholar, I believe, of his year. He went to Cambridge the year after me, and I saw him little, but still occasionally, and always with the old *camaraderie* that exists between fellow-students.

"He was always intended for Holy Orders, and he always, from the first, concentrated his whole work and attention upon such branches as would prove most useful in after life. For instance, he saw that Greek and Latin would be more useful to him as a clergyman than science, and he chose Greek and Latin. Also, he very early understood what many, or most, clergymen fail to understand, that he who has the gift of speech and cultivates it, doubles and trebles his powers of usefulness as a clergyman. Therefore, with the object of developing his own gift of speech, which was very considerable, he spoke often at the Debating Society of King's and at the University, Cambridge.

"He began his life's work, I believe, at St. James' Piccadilly. From that church he went to Herne Bay, where he held a living for many years, being transferred about ten years ago to the church of Portman Square. Perhaps, had he lived, further advancement would have been given to him.

"His connection with the Fund sprung entirely out of his interest in the work. For some years he lectured a great deal for the Society, and he never ceased his interest in the work and his belief in the great importance of its results and discoveries. The Society has lost in Geary a true and tried friend.

"W.B."

The premises at 1, Adam Street, being now too small for the purposes of the Fund, the Committee, after long and careful enquiry and consideration, have taken rooms at 24, Hanover Square, W., which will afford space not only for the ordinary work of the office, but also for the exhibition of the most interesting of the objects which have been collected from time to time by the officers of the Fund.

After spending a month in Egypt with Mr. Petrie, Mr. F. G. Bliss proceeded to Jaffa and Jerusalem, where he has been engaged in making preparations for the exploration work at Tell el Hesy. Mr. Petrie has advised that the first month should be spent in working over the low west town, which is Amorite, and must be explored and turned over before the hill is touched, so that earth can be then thrown down upon it from the hill. Mr. Bliss has arranged with the Governor of Jerusalem for the services of the Effendi who was with Mr. Petrie last year. The weather has been very severe, and this caused some delay. A Russian ship has been driven ashore at Jaffa, but all the passengers and crew, except two or three, were saved. Mr. Bliss is now at Tell el Hesy. His first reports will be found in the present number.

We have received from the Foreign Office a copy of a letter from Mr. W. H. Kayat, reporting that, owing to his endeavours, the Siloam Inscription has been

recovered and handed over to the Turkish authorities. The Greek, in whose possession it was found (see *Quarterly Statement*, January, 1891, page 2) stated that he bought it for thirty-five napoleons, from a Fellah, whose name he could not remember. Unfortunately, the stone bearing the Inscription has been broken in removal.

Mr. Henry Gillman, of Jerusalem, writes :—

"You will be interested in knowing that both the Siloam Inscriptions[1] have been recovered, and are now in the possession of the local Turkish authorities. I saw them recently in the *salon* of the Governor of Jerusalem in the wooden case in which they are to be shipped to the Museum at Constantinople, by order of the Government."

In examining the interior of the vaults known as "Solomon's Stables," in the Haram Area at Jerusalem, which have been partially cleared out by the Moslems, Mr. G. R. Lees has discovered the spring of an ancient arch similar to "Robinson's Arch." It is situated about 57 feet from the inside of the southern wall and about 175 feet from the inside of the eastern wall of the enclosure. Close to this spring of an arch a subterranean passage was found by the Rev. J. E. Hanauer running in a south-easterly direction. These discoveries having been reported by Mr. Lees and Mr. Hanauer to Herr Schick, he has made a plan and section showing them, which will be published in the next *Quarterly Statement*, together with a photograph by Mr. Lees, and an article on the subject by Thomas Wrightson, Esq., M.I.C.E.

Mr. G. R. Lees reports that some tombs situated 350 yards north of the Damascus Gate having been opened, a number of *ossuaires* were discovered, some ornamented, some plain, and two bearing inscriptions. Squeezes of these inscriptions have reached us as we are going to press, but too late for reproduction in the present number.

A Committee which has been formed to consider how Jerusalem may be provided with a plentiful supply of water, met on March 4th, at the house of Sir Edmund Lechmere, Bart., M.P. A subscription was opened for defrayment of preliminary expenses, and a Sub-Committee chosen for carrying out the object in view. An important feature of this movement is that several leading members of the London Jewish Community have joined the Committee.

Dr. Post's second essay on "The Sects and Nationalities of Palestine," is published in the present number. The first of this important series of papers appeared in the *Quarterly Statement* for April, 1890.

[1] One of these appears to be the forgery alluded to in the *Quarterly Statement* for January, 1891, page 3. A copy of it is in the office of the Fund. —[Ed.]

Mr. F. J. Bliss has furnished an elaborate paper on "The Maronites," which will shortly be published.

Mr. W. H. Kayat, who was Acting British Consul at Jerusalem at the time Mr. Flinders Petrie was robbed (see *Quarterly Statement*, 1890, page 237) has written to say that he made a strong representation to the Governor of Jerusalem on the subject, and also communicated with the Kaimakam of Hebron, who caused three Sheikhs from Dawaimeh to be imprisoned for six weeks, but with no result, so far as the detection of the robbers was concerned. The guide engaged by Mr. Petrie from Dawaimeh was also imprisoned, but refused to disclose the names of the offenders. Mr. Petrie writes (from Egypt) that he has no doubt "Mr. Kayat acted with the best good will in his representations," and that the want of success "was not due to lack of action on his part."

The returns of the meteorological observations made by Dr. Torrance at Tiberias during the past two years have been received. These will be of quite exceptional interest, owing to the position of that place, 682 feet below the level of the Mediterranean.

Last year some meteorological instruments were entrusted by the Fund to Mr. Lethaby, the missionary of Kerak. Unfortunately the *maximum* and *minimum* thermometers having become damaged have been sent back to be repaired. The rain gauge and dry and wet bulb thermometers are, however, in working order, and in spite of all the difficulties of his position, Mr. Lethaby "hopes for success at last" in securing a reliable series of observations. Those who have read Mr. Gray Hill's recent experiences at Kerak will appreciate Mr. Lethaby's courage and determination.

It may be well to mention that plans and photographs alluded to in the reports from Jerusalem and elsewhere cannot all be published, but all are preserved in the offices of the Fund, where they may be seen by subscribers.

The first volume of the "Survey of Eastern Palestine," by Major Conder has been issued to subscribers. It is accompanied by a map of the portion of country surveyed, special plans, and upwards of 350 drawings of ruins, tombs, dolmens, stone circles, inscriptions, &c. The edition is limited to 500. The first 250 subscribers pay seven guineas for the three volumes; subscribers to the "Survey of Western Palestine" are privileged to have the volumes for this sum. The price will be raised, after 250 names are received, to twelve guineas. The Committee *are pledged never to let any copies be subscribed under the sum of seven guineas.* Mr. A. P. Watt, 2, Paternoster Square, is the Sole Agent. The attention of intending subscribers is directed to the announcement after Maps and before Contents of this number.

Mr. H. Chichester Hart's "Fauna and Flora of Sinai, Petra, and the Wâdy 'Arabah" has been completed and sent out to subscribers.

The following ladies and gentlemen have kindly consented to act as Honorary Local Secretaries:

Miss Mary Adelaide Lewis, The Deanery, Bangor.
Miss Garnons Williams, Abercamlais, Brecon.
Rev. Maurice Day, Killiney, Co. Dublin.
Rev. Arthur McCullagh, M.A., St. Hilda's Church, Hartlepool.
Benjamin Holgate, Esq., Regents House, Grosvenor Road, Headingley, Leeds,
Rev. J. Mitchell, 57, Parkgate Road, Chester.
Rev. E. Herbruck, Ph.D., Editor of the "Christian World," Dayton, Ohio.

The Committee have to acknowledge with thanks the following donations to the Library of the Fund, viz.:—

"Les Antiquités Sémitiques," by M. Clermont-Ganneau, from the Author.
"De Bordeaux à Jerusalem," by Le Frère Meunier, from the Author.
Reports of the Smithsonian Institute, 1888.

The Committee have added to their list of publications the new edition of the "History of Jerusalem," by Walter Besant and E. H. Palmer (Bentley & Son). It can be obtained by subscribers, carriage paid, for 5*s.* 6*d.*, by application to the Head Office only. The "History of Jerusalem," which was originally published in 1871, and has long been completely out of print, covers a period and is compiled from materials not included in any other work, though some of the contents have been plundered by later works on the same subject. It begins with the siege by Titus and continues to the fourteenth century, including the Early Christian period, the Moslem invasion, the Mediæval pilgrims, the Mohammedan pilgrims, the Crusades, the Latin Kingdom, the victorious career of Saladin, the Crusade of Children, and many other little-known episodes in the history of the city and the country.

The books now contained in the Society's publications comprise an amount of information on Palestine, and on the researches conducted in the country, which can be found in no other publications. It must never be forgotten that no single traveller, however well equipped by previous knowledge, can compete with a scientific body of explorers, instructed in the periods required, and provided with all the instruments necessary for carrying out their work. The books are the following (*the whole set can be obtained by application to Mr. George Armstrong, for £2, carriage paid to any part in the United Kingdom only*):—

By Major Conder, R.E.—

(1) "Tent Work in Palestine."—A popular account of the Survey of Western Palestine, freely illustrated by drawings made by the author himself. This is not a dry record of the sepulchres, or a descriptive catalogue of ruins, springs, and valleys, but a continuous narrative full of observations upon the manners and customs of the people, the Biblical associations of the sites, the Holy City and its memories, and is based upon a six years' experience in the country itself. No other modern traveller has enjoyed the same advantages as Major Conder, or has used his opportunities to better purpose.

(2) "Heth and Moab."—Under this title Major Conder provides a narrative, as bright and as full of interest as "Tent Work," of the expedition for the *Survey of Eastern Palestine*. How the party began by a flying visit to North Syria, in order to discover the Holy City—Kadesh—of the children of Heth; how they fared across the Jordan, and what discoveries they made there, will be found in this volume.

(3) Major Conder's "Syrian Stone Lore."—This volume, the least known of Major Conder's works, is, perhaps, the most valuable. It attempts a task never before approached—the reconstruction of Palestine from its monuments. It shows what we should know of Syria if there were no Bible, and it illustrates the Bible from the monuments.

(4) Major Conder's "Altaic Inscriptions."—This book is an attempt to read the Hittite Inscriptions. The author has seen no reason to change his views since the publication of the work.

(5) Professor Hull's "Mount Seir."—This is a popular account of the Geological Expedition conducted by Professor Hull for the Committee of the Palestine Fund. The part which deals with the Valley of Arabah will be found entirely new and interesting.

(6) Herr Schumacher's "Across the Jordan."

(7) Herr Schumacher's "Jaulân."—These two books must be taken in continuation of Major Conder's works issued as instalments of the unpublished "Survey of Eastern Palestine." They are full of drawings, sketches, and plans, and contain many valuable remarks upon manners and customs.

(8) "The Memoirs of Twenty-one Years' Work."—This work is a popular account of the researches conducted by the Society during the past twenty-one years of its existence. It will be found not only valuable in itself as an interesting work, but also as a book of reference, and especially useful in order to show what has been doing, and is still doing, by this Society.

(9) Herr Schumacher's "Kh. Fahil." The ancient Pella, the first retreat of the Christians; with map and illustrations.

(10) Names and Places in the Old and New Testament and Apocrypha, with their modern identifications, with reference to Josephus, the Memoirs, and *Quarterly Statements*.

(11) Besant and Palmer's "History of Jerusalem," already described.

(12) Northern 'Ajlûn "Within the Decapolis," by Herr Schumacher.

To the above must now be added Mr. Henry A. Harper's "The Bible and Modern Discoveries," a cheap edition of which has recently been issued—price to the public, 7*s.* 6*d.*; to subscribers to the Fund, 5*s.* Mr. Guy le Strange's important work "Palestine under the Moslems," price to the public, 12*s.* 6*d.*; to subscribers to the Fund, 8*s.* 6*d.*; and Mr. Flinders Petrie's account of his excavations at Tell el Hesy (Lachish), price to the public 10*s.*; to subscribers to the Fund, 6*s.* 6*d.*

The work of Mr. Guy le Strange on "Palestine under the Moslems" was published in April, 1890.

For a long time it had been desired by the Committee to present to the world some of the great hoards of information about Palestine which lie buried in the Arabic texts of the Moslem geographers and travellers of the Middle Ages. Some few of the works, or parts of the works, have been already translated into Latin, French, and German. Hardly anything has been done with them in English, and no attempt has ever been made to systematise, compare, and annotate them.

This has now been done for the Society by Mr. Guy le Strange. The work is divided into chapters on Syria, Palestine, Jerusalem, and Damascus, the provincial capitals and chief towns, and the legends related by the writers consulted. These writers begin with the ninth century and continue until the fifteenth. The volume contains maps and illustrations required for the elucidation of the text.

The Committee have great confidence that this work—so novel, so useful to students of mediæval history, and to all those interested in the continuous story of the Holy Land—will meet with the success which its learned author deserves. The price to subscribers to the Fund is 8*s.* 6*d.*; to the public, 12*s.* 6*d.*

The new map of Palestine, so long in hand, is now ready. It embraces both sides of the Jordan, and extends from Baalbek in the north to Kadesh Barnea in the south. All the modern names are in black; over these are printed in red the Old Testament and Apocrypha names. The New Testament, Josephus, and Talmudic names are in blue, and the tribal possessions are tinted in colours, giving clearly all the identifications up to date. It is the most comprehensive map that has been published, and will be invaluable to universities, colleges, schools, &c.

It is published in 21 sheets, with paper cover; price to subscribers to the Fund, 24*s.*, to the public, £2. It can be had mounted on cloth, rollers, and varnished for hanging. The size is 8 feet by 6 feet. The cost of mounting will be extra (*see* Maps).

The third edition of Mr. Henry A. Harper's book, on "The Bible and Modern Discoveries," having been sold out, a new and cheap edition was

issued in February. The work is an endeavour to present in a simple but yet connected form the Biblical results of twenty-two years' work of the Palestine Exploration Fund. The writer has also availed himself of the discoveries made by the American Expeditions and the Egyptian Exploration Fund, as well as discoveries of interest made by independent travellers. The Bible story, from the call of Abraham to the Captivity, is taken, and details given of the light thrown by modern research on the sacred annals. Eastern customs and modes of thought are explained whenever the writer thought they illustrated the text. To the Clergy and Sunday School Teachers, as well as to all those who love the Bible, the writer hopes this work will prove useful. He is personally acquainted with the land, and nearly all the places spoken of he has visited, and most of them he has moreover sketched or painted. The work is illustrated with many plates, and a map showing the route of the Israelites and the sites of the principal places mentioned in the sacred narratives. It should be noted that the book is admirably adapted for the school or village library.

Branch Associations of the Bible Society, all Sunday School unions within the Sunday School Institute, the Sunday School Union, and the Wesleyan Sunday School Institute, will please observe that by a special Resolution of the Committee they will henceforth be treated as subscribers and be allowed to purchase the books and maps (by application only to the Secretary) at reduced price.

The income of the Society, from December 19th to March 21st, was—from annual subscriptions and donations, including Local Societies, £704 17*s.* 8*d.*; from all sources, £1,254 0*s.* 8*d.* The expenditure during the same period was £1,277 15*s.* 0*d.* On March 21st, the balance in the Bank was £754 4*s.* 2*d.*

Subscribers are begged to note that the following can be had by application to the office, at 1*s.* each:—

1. Index to the *Quarterly Statement*, 1869–1880.
2. Cases for Herr Schumacher's "Jaulân."
3. Cases for the *Quarterly Statement*, in green or chocolate.
4. Cases for "Abila," "Pella," and "'Ajlûn" in one volume.

Early numbers of the *Quarterly Statement* are very rare. In order to make up complete sets, the Committee will be very glad to receive any of the following numbers:—

No. II, 1869; No. VII, 1870; No. III, 1871; January and April, 1872; January, 1883, and January, 1886.

It having again been reported to the Committee that certain book hawkers are representing themselves as agents of the Society, the Committee have to caution subscribers and the public that they have no book hawkers in their employ, and that none of their works are sold by itinerant agents.

While desiring to give every publicity to proposed identifications and other theories advanced by officers of the Fund and contributors to the pages of the *Quarterly Statement*, the Committee wish it to be distinctly understood that by publishing them in the *Quarterly Statement* they neither sanction nor adopt them.

Subscribers who do not receive the *Quarterly Statement* regularly are asked to send a note to the Secretary. Great care is taken to forward each number to all who are entitled to receive it, but changes of address and other causes give rise occasionally to omissions.

The only authorised lecturers for the Society are—

(1) The Rev. Thomas Harrison, F.R.G.S., Member of the Society of Biblical Archæology. Address: Rev. Thomas Harrison, 38, Melrose Gardens, West Kensington Park, W. His subjects are as follows:—

(1) *Research and Discovery in the Holy Land.*
(2) *In the Track of the Israelites from Egypt to Canaan.*
(3) *Bible Scenes in the Light of Modern Science.*
(4) *Eastern Palestine.*
(5) *The Dead Sea and the Cities of the Plain.*

(2) The Rev. Charles Chidlow, M.A., Caio Vicarage, Llandilo:—

Recent Discoveries in Bible Lands.

Application for Lectures may be either addressed to the Secretary, 1, Adam Street, or sent to the address of the Lecturers.

BALANCE SHEET FOR THE YEAR ENDING 31st DECEMBER, 1890.

Receipts.	£	s.	d.
To Balance in Bank, 31st December, 1889 ..	375	6	5
Donations and Subscriptions	2,674	18	1
Proceeds of Lectures ..	26	14	8
Sales of Memoirs of Western and Eastern Surveys, and Books published by the Society	619	17	4
Sale of Maps	278	16	10
Sale of Photographs ..	25	9	7
	£4,001	2	11

Expenditure.	£	s.	d.
By Exploration.. ..	550	17	6
Printing and Binding, including *Quarterly Statement*	790	15	10
Maps, Lithographs, Photographs, Illustrations, &c., including those for the *Quarterly Statement*	583	7	9
Management, including Rent, Salaries, Wages, Advertising, Insurance, Stationery, &c.	587	6	5
Postage and Carriage of *Quarterly Statement*, Books and Maps	142	7	10
Liabilities paid off ..	535	0	0
Balance in Bank, 31st December, 1890..	811	7	7
	£4,001	2	11

CHAIRMAN'S STATEMENT.

In the absence of Mr. Morrison, it becomes my duty to make the following remarks on the balance sheet. The subscriptions and donations show a large increase on those of the year 1889. This is due to an appeal for funds for carrying on the excavations in Palestine, which brought in about £1,000.

The expenditure amounts to £3,189 15*s.* 4*d.* This sum is made up as follows:—

	£	s.	d.
Exploration	550	17	6
Publications	1,374	3	7
Management	587	6	5
Postage of Books, Maps, and *Quarterly Statement*	142	7	10
Liabilities paid off	535	0	0

The Society is this day (March 17th) practically out of debt. There is a sum of about £350 due to the printers. This, however, is a liability which varies considerably from time to time. The apparent discrepancy between the amount received from the sale of publications and that expended upon them, is mainly due to the fact that the *Quarterly Statement* is given to all subscribers—an arrangement which gives stability to the Society, but costs between £300 and £400 a year. When allowance is made for this, it will be found that the difference is very slight; and indeed it disappears if the stock of maps and books in the hands of the Society be taken into account.

(Signed) James Glaisher,
Chairman of the Executive Committee.

REPORTS FROM MR. F. J. BLISS.

JAFFA,

February 20th, 1891.

I ARRIVED here on Monday 16th, and began at once the tedious labour of arranging a tram to facilitate the removal of earth from the excavations. The matter took me five days in Cairo. The Government people—Colonel Ross, Sir Colin Moncrieff, Mr. Perry, and others—were very kind, and I made thorough inquiries but found that though I could buy second-hand tram stuff, it would be very expensive. For example, I was offered a complete tram-line four or five times the needed length, with ten wagons, for 160*l.* This would then have to be transported from Suez. They would not divide the plant and sell me part. The people at the Barrage asked 20*l.* a truck to contain a cubic metre of earth. Finally I was directed to a foundry where I purchased 16 pairs of iron wheels (second-hand) with axles, and was advised to bring them to Jaffa and have trucks made here and also wooden rails with an iron cap.

I have spent a wearisome five days trying to get estimates from the German carpenter and wagon-builder here. The contract is at last signed, and he has agreed to make the hard wood rails with iron cap for a line of 60 metres, with ties, and to construct 8 trucks of wood and iron (to tip earth either side) upon the wheels and axles which are to come from Cairo, for the sum of 51*l.*

This, after two weeks' work, is the cheapest that I can do, though it seems a large price, for the iron bought in Cairo cost somewhat over 8*l.*, making the whole about 60*l.*

I have had to advance the wagon-builder 20*l.*, which he agrees in the contract to refund in case he does not keep to the terms. If the iron arrives in a fortnight he agrees to furnish the rails and trucks in six weeks from this time.

Mr. Petrie thinks that the first month should be spent in working over the low west town, which is Amorite, and must be explored and turned over before the hill is touched, so that earth can be then thrown down upon it from the hill. He thinks that this low west town may be as valuable a place to dig as anywhere else, and must be done and done first.

I had a profitable month in Egypt with Mr. Petrie. I came from Port Said by the Austrian steamer, but had fully intended taking the Russian a day later. She now lies a wreck off the shore here, and yesterday morning I saw the most thrilling sights. It is supposed that

all but two or three were saved. One of the directors of the French Railway Company has been very kind with advice, and I have had advice from others.

Tell-el-Hesy, March 9th, 1891.

At last I write from this address. The Effendi and I left Jerusalem on Thursday the 5th, and the next day had a long day's ride from Ramleh.

Some of the ditches were quite bad, but the mules got over them all without serious accident. The country is simply charming, with its rolling greenness of grass and wheat and sweet scented beans. My own horse, brought from Beirût by my man Yusif, is delighted to graze all day near the tent. The Effendi is happy because no Arabs are near and the tribes are at peace. By the way the Effendi is really a very nice fellow; he boasts rightfully of his descent from the great Khalid, and his family is much honoured. He is very intelligent, kindly and accommodating.

Of course these first two or three days I have employed no workmen, but spent my time in tracing Petrie's work very carefully. On the whole, the heavy rains have rendered it easier to trace the brickwork, as the moisture brings out differences of earth colouring. Some of Petrie's points I cannot yet determine, but in general the brickwork is more clearly traceable than I expected. What astonishes me is that he did such an amount of work in so short a time. But then one must add to his six weeks actually spent here, the years of acquaintance with brick in Egypt.

The stone steps and guard-house at the south-east of the town have been removed by the villagers. My man Yusif will be a great help, as he has a keen scent for brick in its various stages of decay. Unfortunately the west town, where Petrie strongly advises me to begin work, is covered with crops as is the Tel. Buying these out will necessitate some outlay of cash. I am very sorry Major Watson was prevented from visiting me here.

ESSAYS ON THE SECTS AND NATIONALITIES OF SYRIA AND PALESTINE.

Essay 2, Introduction.

By Rev. George E. Post, M.A., M.D., F.L.S.

Land Tenure, Agriculture, Physical, Mental, and Moral Characteristics.

I.—Land Tenure.

There exist in Syria and Palestine nearly all the forms of land tenure which prevail now, or have prevailed, in the world.

1. *Mulk.*

This corresponds accurately to *freehold property*. Perhaps the best illustration of this kind of property is to be obtained from the translation of the deed of the writer's own premises at Ras Beirût, next to the Syrian Protestant College.

It must be premised that, at the time the purchase was made, foreigners were not entitled by Turkish law to acquire or hold real property within the limits of the Empire. But long usage had established a mode of obtaining such property, which was respected by the Government, and quite safe before the Protocol by which foreigners were allowed to become proprietors of real estate. A native of the country appeared in court, and bought the property, as if for himself, and with his own money. He then went to the Consulate of the real purchaser, and executed a deed in which he declared that he had bought the property with the money, and for the behoof of the real purchaser, and that he, the ostensible buyer, had no right or claim whatever in the aforesaid transaction. The following is a translation of the original deed :—

[Name and seal of the Administrators.]

"Praise be to God Almighty.

"In the Court of the Honourable Law, and the Assembly of the noble Government, in the city of Beirût, in the presence of its ruler, our master, the Legal, *Hanafite*[1] Administrator, who has placed his able

[1] *Hanafite* refers to Abu-Hanîfah, whose name was en-Nu'mân, Ibn Thâbit, Ibn-en-Nu'mân, Ibn-Marzabân, the Persian, leader of the Hanafite sect, which is that of the Ottoman Sultans.

name and seal above, may his advantage last, and his exaltation increase, there presented himself *Nâsir-ed-dîn*, the son of Hassan, the son of Muḥammed of Shuweifât, and sold what he possessed, and was his by freehold right and usufruct, and what had become his by legal purchase and improvement, and was confirmed to him by a legal deed in his possession, to the one who has now drawn up this legal agreement, *Khawajah Michail, Ibn-Yunus-el-Gharzûze*, who has bought *with his own money, for himself*, the property [here follows the minute description of the boundaries of the property], with all the rights appertaining thereto, and its roads and belongings, and that by which it is known and legally specialized, from all sides and directions, *a true and legal, confirmed and permanent sale and purchase*, by the consent and acceptance and mutual agreement of both parties, free from all conditions of deceit, and from all reconsideration and reservation, and with a complete legal surrender. The foregoing sale was made in two parts, each as an independent act by itself, the first being three out of twenty-four qirâts,[1] for two hundred

[1] It is the custom of all Oriental lands to measure everything by a standard of twenty-four carats (Arabic *Qîrat*). The qirât literally means an inch, or the twenty-fourth part of the dra', or Arabic Ell. Our English expression, eighteen-carats fine, for gold, is a survival of this usage. It signifies that the metal contains eighteen parts of gold in twenty-four of the alloy. Everything here is supposed to be made up of twenty-four carats, and its half of twelve carats, and the fourth of six carats, and so on. Thus a patient or his friends will ask a physician how many qirâts of hope there are in his case. A man will say that there are twenty-three carats of probability that such an occurrence will take place. A company divides its shares by carats. In this case the property was divided into twenty-four carats not in the sense that certain parts of it were set off from the other parts, but that a twenty-fourth part of the whole property was contained in each carat. Three carats were then sold for two hundred Turkish pounds. That is, one-eighth of the whole property, distributed through the whole, is sold for nearly half the total price, and this sale was completed before the other twenty-one carats were sold for a little more than the half of the total price. The object of this form of sale is to evade the prior rights of a neighbour or a partner to purchase the property over the head of an outside bidder at the price named. The law of *Shuf'ah*, which confers the above-mentioned right, is as follows:—

Shuf'ah consists of three kinds—(1) When the claimant is a partner in the ownership of the property to be sold. In that case his claim is per caput, not according to the value of his share. (2) When the claimant is a partner in certain rights in the property to be sold, such as the use of water privileges or right of way. (3) When the claimant is a neighbour, whose property is in immediate contact with that to be sold. If a sale is affected to a person not entitled to the claim of Shuf'ah, and any of those in either of the above three categories asserts his claim, he may compel the buyer to surrender the property at the price at which he bought it. If the claimant does not assert his claim until the transaction is completed he forfeits his rights, and the sale is valid and inalienable by Shuf'ah. If, however, the claimant, or any one of the claimants (for they may be numerous), be absent at the time of the sale, he may at any

Turkish pounds, and the second part of twenty-one qirâts of the whole for two hundred and thirty-five Turkish pounds, and both of the aforesaid sums from the money of the above-mentioned buyer were paid into the hand of the aforesaid seller exactly as confessed by the latter in the court, and all this after previous information and consideration, and legal agreement between the two contracting parties, according to the recognised method, by mutual consent and choice, without force or compulsion on either, each having put aside corrupt deceit and double-dealing toward the other, could such a thing be supposed of him.[1] Also the obligation of restitution belongs legally to the before-mentioned seller.[2] Then there appeared Haj Muhamonad,[3] Ibn-Haj-Muhammad-el-'Alâili,

time on his return, assert and obtain his claim, provided he do so immediately on his arrival. So important is it deemed in law that this claim should be pressed at once or not at all, that it is expressly provided that if, on arriving, the claimant goes first to a mosque or church to offer prayer before he has asserted his claim of Shuf'ah, he has forfeited his right. He may not even go to the bath, nor change his raiment, however travel-stained it may be, but must proceed at once to the government offices and lodge his claim without delay.

The danger of an unexpected claimant appearing and snatching away a property when it has been in the possession of a purchaser for years has led to the custom of selling in two parts, the first a small fraction of the property, distributed through the whole, for a proportion of the total sales price so large that a claimant would be unwilling to assert his claim. By the purchase of the second part after the first the purchaser is sure of that portion, as the neighbour or partner is only entitled to claim that which is, so to speak, contiguous to his pre-existing rights. Should he assert his claim to the first part, and take it away from the purchaser, his act, being subsequent to both sales, does not vitiate the right of Shuf'ah which the purchaser acquired over the second part by his temporary possession of the first. Furthermore, as his right to the second part is now confirmed, he thereby acquires a Shuf'ah of partnership with the owner of the first part, which will prevent him from selling to anyone but himself. So effectual is this subterfuge of the law that it has been adopted into all deeds.

[1] It is repugnant to Oriental ideas of courtesy and refinement to attribute to anyone ill conduct or unworthy motives, consequently the legal terms in which the possibility of deception and fraud are admitted, also provide for the exoneration of both parties from such an injurious suspicion.

[2] This clause refers to a custom, once in force, of exacting from the seller of a bond, that, in case there should be any flaw in the title, or for any cause the buyer should not get possession of his property, the seller should be obliged to repay the price of the purchase. This bond being no longer exacted, the clause here inserted is supposed to secure to the buyer the safety of his payment.

[3] The person who appeared here was a mortgagee of the property. He appears in Court and declares that his mortgage is satisfied, and that he has no further claim on the property. This is also a fiction of the law, as the seller usually has no money to pay until the sale is concluded, and the buyer will not pay the money until he has his deed. But the Court will not grant the deed

and witnessed the sale of the property, with its belongings, legal witness, by means of his plain utterance that the sale was genuine and legal, and that he had no property, or right, or case of any kind, and that although the property had been mortgaged to him for a certain sum, he had received the said sum entire from the seller, and that he had no right over him at all, and granted his permission to have his testimony to the above given freely and willingly.

"Written on the nine and twentieth of Jamâda the Second, in the year one and ninety and two hundred and a thousand.[1]

"[Witnesses names.]"

Such a deed as the above is a sample of the more elaborate of the deeds of city property. It would seem, on the face of it, to give over for ever the rights of the real purchaser to the supposititious one. To correct this the ostensible purchaser gave the following declaration in the Consulate of the real owner.

"The reason for this declaration.

"On the date mentioned at the foot, there personally appeared in this Consulate, Michail-Ibn-Yunus-el-Ghurzûzi, a resident of Beirût, and declared in the presence of the witnesses mentioned below, that the piece of ground and buildings which he had purchased of Nâsir-ed-dîn Ibn-Hassan, Ibn-Muḥammed-esh Shuweifâti [here follows the description of the property as in the original deed] was not his property, and that he had no right of property in it, but that it was the property of Dr. George Post, the American, and his own possession, and that the price had been paid out of the money of the latter, and Mr. Michail Ghurzûzi further declared that his name in the before-mentioned deed was introduced only as a borrowed name, and a legal fiction, and to make the same clear, he wrote this deed, signed at the foot by the aforesaid witnesses, and caused it to be registered in the Consulate of the United States of North America in Beirut, on the twenty-first of August, 1874.

"[Witnesses.]"

Soon after the above property was acquired and transferred as above, the Protocol, which granted to foreigners the right to hold property, was signed, and a new deed of sale was made out in conformity with this Protocol, in which Mr. Ghurzûzi figured as the seller, and Dr. Post was the purchaser. The latter remains the permanent deed of the property.

In interior towns and country districts, deeds are somewhat simpler in their wording, but of similar import. The Government claimed, and perhaps with justice, that corrupt practices had crept in. In some cases persons had introduced a stranger, and two witnesses had sworn to his identity with the owner of the property, and then the court proceeded to give a deed in the name of the bogus owner, and this deed was afterwards recognised as genuine in the court, and so the owner was defrauded of his rights. To correct this abuse the Government devised the Ṭâbu

until all the parties concerned admit the payment and receipt of the several sums due from them or to them.

[1] The order of the numerals is the usual one in all Mohammedan writings.

system, in which all old deeds are required to be replaced by new papers, called *Aurâq-et-Taṭwîb* (*i.e.*, papers of the Ṭâbu). Such papers can only obtained on application to the Governor-General of the province, who refers them to the several departments in which the registers of property are kept, and only after a thorough search into the particulars detailed are the papers issued. The advantage of this system is claimed by the Government to be on the side of the property holders, though it is generally believed by the latter to be in the interest of the Exchequer, which thus realises a heavy tax from all holders of real estate for another deed, which seems to them no better than the old. The following are the details of a Ṭâbu paper :—

Turkish Original.	*Translation.*
Liva	Province (the Governor, a Mutasarrif).
Quḍa	County (the Governor, a Qaîmaqâm).
Qaṣabah or Qura	City or village.
Maḥallah wa Mauq'a	The quarter of the town or county in which the property lies.
Roqm-abwâb waYakhûd-taḥrîr	The number on the door of the house.
Amlâk-numerosi	The number in the Domesday Book.
Nau 'Musqafât wa maghrûsât	The kind of property, whether houses or land.
Nau' Arḍ	Whether improved or unimproved.
Ḥudûd-arba'ah	Boundaries of property.
Muqdar dhîrâ'	Number of ells.
Dunem	Number of Dunems. The Dunem is 1,600 dhirâ's.
Muqâta'ah-sanawîyah	Yearly income.
Jehât-i'ṭâ sanad	The place where the Ṭâbu paper was issued.
Malik wa Malikah	Names of male and female owners.
Tamallak Abdan	Names of buyers.
Bai'	Names of sellers.
Intiqâl	Whether the property is from inheritance.
Maḥlûl Ṣarf	If the property be Crown land, by what authority was it sold.
Thaman	Price of sale.
Qîmat mukhammanât	Appraised value.
Kharj	Tax.
Kaghid biha....	Price of paper.
Badal muzâyadah	Auction price.

There follows a sentence of which the ensuing is a free translation :—

The Imperial Bureau of Real Estate gives for the aforesaid property

this certificate of possession, in order that the aforesaid person may have a certificate of possession recognised by the Imperial Government. This provisional paper has been given on the day of year .

Ḥakim (Ruler). Muḥasibji (Accountant). Deftar Khaqâni (Imperial Register). ṣandaq Amîni (Treasurer.)

The two classes of deeds above illustrated exhibit the present state of Turkish law, and the tendency of the Turkish mind in the direction of making real estate a freehold property, with exact legal definitions. Still further to strengthen the rights of freeholders, a provision of the Ṭabu law allows a proprietor to send his Ṭabu deed to Constantinople to be registered, and returned to him with the seals of the Imperial bureaux attached.

On properties of this class a tax called Wîrku is collected annually. If the property is of the dwelling-house kind $\frac{8}{1000}$ of its appraised value are taken. If a house for rental, or a garden producing fruit, or a shop, or other property yielding income, 1 per cent. is taken. Beside this tax on garden or orchard property for the benefit of the Imperial revenue a heavy octroi tax is collected for municipal purposes.

2. *Farming Property*, or *Broad Acres.*

The gardens and orchards in the neighbourhood of the cities are held on the freehold principle, but often let to peasant tenants, on condition of a share in the produce. The lands of Lebanon are also to a large extent possessed, in small holdings, by the resident peasant population. The convents own large tracts of real estate, and work them on the partnership plan. A village or villages in the district plough, sow seed furnished by the convent, reap, thresh, and winnow, on condition of a share of the produce, which varies from a fourth to a half. These metayers, although they have no legal claim to the ground so cultivated, continue to cultivate it as a modified kind of serfs, and transmit the inheritance of the privilege to their descendants. Great secular landlords usually cultivate their lands on the same principle. The legal titles to all these lands are by deeds of Mulk, or by Ṭâbu papers, or both. The latter supersede the former.

In the Buqa', and about Ḥems, Ḥama, Damascus, Ḥaurân, and the other great plains, the property is partly owned by the freeholders of the villages, but more usually by large capitalists, who let the land to the cultivators of the villages on the metairial principle. Although the metayers are nominally engaged only by the season, and might be legally ejected at its end, in point of fact this is hardly ever done, and the villagers look

upon the lands they thus occupy as a permanent resource for themselves and their descendants. Of course they cannot give any legal transfer of their immunities, but they can share them with their children and relatives.

The peasant cultivators are a shiftless class, and seldom lay by anything in good seasons, and so are almost to a man in debt. Capitalists in the cities are always ready to lend their money at extravagant rates of interest, such as 2 to 3 per cent. a month. Such loans encumber the patrimony of the farmer with hopeless mortgages, and in the end the owner is forced to yield up his title, and become a *Sherîk-el-Hawa*[1] (Partner of the Wind), where he and his ancestors were once proprietors. In this way, as individual capitalists favour certain villages, they gradually absorb all the property of the peasants, and the villagers become their metayers (in Arabic, *muzâri'în*), and enjoy for their work a variable proportion of the produce. If the seed is furnished by the proprietor, the peasant usually gets but a fourth of the net yield.

In some parts of the country, as, for example, in Southern Palestine, and in a few other districts, the land is held in common by all the inhabitants of a village, and apportioned at stated times to the individual cultivators according to their ability to cultivate, their standard being the number and power of the cattle used for ploughing. Such lands are known as, *mushâ' 'ah*. The principles on which the arable soil is apportioned by lot are minutely set forth by James Neil, M.A., in a paper read January 20, 1890, before the Victoria Institute in London. They are in substance as follows:—the persons proposing to work the ground divide into groups, and the chief of each group draws a section of the land proportioned to the number of persons in his group. Each section is composed of lands of various fertility and qualities. These sections are again subdivided by measurement with an ox-goad, or a line called *ḥabaleh*, the counterpart of the measuring line of Scripture. The farmers, in such regions as possess this custom, prefer this method of communistic division to holding in fee simple.

Until 1277 of the Mohammedan era, 28 years ago, all the lands outside cities and their environs, and Mount Lebanon, were held on the communal principle, and apportioned to the cultivators as above. At that date the Government introduced the *taṭwîb*, and has steadily pressed upon the peasants the necessity of dividing the lands, and taking out *ṭâbu* deeds for them in severalty. In the Buqa', and around Damascus, and in many other parts of the country, there are no more lands held in common, and each proprietor holds his own real estate. But in Ḥaurân, and in many of the outlying, and only partially organised districts, the land is still held in the old way by the communes. The Government, however, has recently laid its hand on the forest lands, and takes a tax of twenty paras the load on all wood cut for sale, but allows the peasants

[1] The Sherîk-el-Hawa is a *tenant at will*. Yet such is the tendency of things to go on as they have begun, that such tenants usually remain in the ancestral house, and work the ancestral acres as if they were their own.

and proprietors to cut wood free for their own use. In the Buqa' this high-handed measure was adopted only three years since. In many of these districts the pasture lands are still held in common by the villagers.

The *Shekârah* is either a small portion of land in a garden or orchard, which the gardener cultivates for his own benefit, or the silkworms which a baker or other public servant rears from the mulberry trees of those who avail themselves of their services, or the portion of land set apart for the religious teacher, the carpenter, or the blacksmith and farrier.

Forest lands are often held in common, as also the bare goat pastures at the summits of the mountains, and in the neighbourhood of the villages, The fact that the higher mountains are pastures for goats, and that even the Government has not the right to replant them with forests, is a very serious one in its bearing on the rainfall and fertility of the country. The enlightened late Governor-General of Lebanon, Rustem Pacha, told the writer that, in the existing state of the Turkish law, it is quite impossible to prevent the herdsmen from pasturing their flocks on the higher mountains above the altitude of cultivation, and as the goats destroy all seedlings it is impossible to attempt to replant these districts with trees.

3.—*Crown Lands.*

There are large tracts of excellent arable soil, especially in the interior, which belong to the Government. Parts of these lands are settled, and in some cases the farmers are muzâri'în, or tenants of the Government, not liable to eviction, and competent to sell their tenant privileges, yet not owners in fee-simple of the land. Other tracts are not settled, but may be hired of the Government for farming purposes for a limited time, at a rental agreed upon by the authorities and the lessee. The general policy of the Government, however, is to sell these unoccupied lands as freeholds, or, in certain cases, like those of the Circassian immigrants, to give them as homesteads to such persons as the authorities may wish to provide for.

From all the produce of the farming lands of the empire a tithe is taken in kind. As, however, it would be a complicated and difficult process for the Government to collect these taxes directly, they are accustomed to let them out to tax-farmers (*multazamîn*), for a sum agreed upon by both parties. These multazamîn (who correspond to the *publicans* of the New Testament) having to indemnify themselves for their risk, resort to every form of intimidation and oppression to wrest from the poor producer much more than the tithe. As the Government supplies them with soldiers to assist them in the collection of the taxes, they are able to exercise a most effective and odious form of tyranny. As the crops cannot be measured until threshed out and winnowed in heaps on the threshing floors, the farmers are forced to leave their harvests exposed to the attacks of birds and insects, of rats and other vermin, and the depredation of thieves, and the damage of occasional showers, until the

multazim chooses to come and measure out the grain. Then he has the power (not *legal*, but none the less *real*) to quarter his horsemen and other animals without compensation on the poor villagers, who are glad to buy him off and get rid of him by paying two tenths or more.

In addition to the tithe there is a land-tax of from 20 to 60 paras the dunem (Turkish acre), according to the fertility of the soil.

4.—*Awqâf, or Endowment Property.*

Land given to endow benevolent and educational institutions is free of Government tax. But buildings, on which rental is collected, even if on ground that is free from taxation, pay the usual *wîrku*, as in the cases of non-waqf property. Buildings used for convents, schools, and churches or mosques, may be exempted from the *wîrku*. The produce of endowment lands, however, is tithed as that of other lands.

Waqf-land is inalienable by sale. But it may be exchanged for other real property which is considered by the Court to be more advantageous to the institution. In this way the borders of a plot of waqf-ground may be rectified. Under certain circumstances portions of the public roads may be exchanged for private property. Here again the method of procedure may be illustrated by a deed of property belonging to the writer. This property is at the junction of the villages of 'Aleih and 'Ain-er-Rummâni in Lebanon. Adjoining it is a small plot of ground, in which grows an oak tree, held in great reverence by the Druzes. It is waqf-property belonging to the 'Aleih commune. The tree is called *Umm-esh-Sheraṭît* (the mother of rags), because the people are in the habit of tying bits of rags to its lower branches on the occasion of the recovery of the sick, or the attainment of any special object. At the time of the acquisition of the property by the side of this tree, which may be two hundred years old, and is a fine feature of the landscape, there was an old road, a mere rocky bridle-path, which led up from the village of 'Ain-er-Rummâni to the tree, and past it to 'Aleih. This bridle-path cut off a corner of the property of the writer. As this path had ceased to be used as a road, owing to the making of a good carriage road a few feet away, and as it cut the property of the writer in two, he offered to the Government to make a good, well-graded path to the tree, in place of the portion of the old road which passed through his ground. The offer was accepted, and the exchange ratified in the following paragraphs endorsed on the deed. The first is a communication from the then Governor-General, Rustem Pacha, now Ottoman Ambassador to the Court of St. James :—

"To the Qaimaqâm of the district of Esh-Shûf.

"Honourable Governor,—Within is a petition from Dr. Post, in which he states that he has bought a plot of uncultivated ground from Ibrahîm Ḥaddâd and Ibrahîm-el-Barûdi, for which he has a deed registered in the court of the district of esh-Shûf, and that there passes through it a portion of the old road, now impassable, owing to the construction of the new

carriage-road, which has destroyed the terminus of the old road. By our authority he has included this section of the old road within his wall, and has made at his own expense, from his own property, a road leading to the oak tree which belongs to the community, and he now asks that his exchange be endorsed on the deed of purchase, and inasmuch as it seemed proper that this should be done, and inasmuch as the transaction is a public benefit, owing to the useless state of the old road, and the usefulness of the new road which he has made at his own expense and in his own property, it was necessary to inform you, and to send the deed, in order that you might instruct the court to declare this exchange, and to legalise it in a proper way, that will prevent all complaint or lawsuit hereafter, and to return it to us. This was written on 17 Ramaḍân, 1293 (23 Ailûl, 1292)."

The note appended by the court is as follows :—

"Praise be to God Almighty !

"We have been honoured by reading your noble vizierial order, the copy of which is written above, and the purport of its contents has been duly attended to, and inasmuch as the right of dealing with the public highway is an appanage of the Imâm, who is our August and Mighty Master, the Sultan-Ibn-es-Sultân, the Puissant and Potent Sultan 'Abd-el-Hamid-Khân, the throne of whose lofty power may God Almighty preserve for ever, and of his honoured wakîls, such as our Governor Rustem Pacha, the noble Mutasarrif of Mt. Lebanon, and inasmuch as the order of the above-mentioned has been given that the public road which is included in the property of Dr. George Post, the American, as defined and registered within, a road leading to the oak tree, popularly known as Umm-esh-Sheraṭît, a tree belonging to the waqf-property of the village of 'Aleih, be transferred to Dr. Post, and inasmuch as the aforesaid doctor has made a good road to the oak tree at his own expense, between the carriage-road and the circle around the afore-mentioned oak tree, as a compensation for the other road, and all is actually accomplished, and it has been found that the new road made at the expense and cost of the aforesaid doctor is better than the other, and easier for those passing over it, and that thus a public benefit has been conferred, therefore the transfer of the above-mentioned road is right in law, and regular, and no one has a right of way in the ground of the afore-mentioned doctor, which is described within, on account of this exchange of a road to lead to the oak tree belonging to the commune. For the above reason this document was issued by the Court of the district of esh-Shûf, and registered in accordance with the most honourable order above referred to, and with approved principles. Given on the 21 Ramadan, 1293 (27 Ailûl, 1292).

"Judge of the District of esh-Shûf. President of the District of esh-Shûf."

5. *Forms of Rental of Land.*

Allusion has already been made to some of these, but it is convenient to group them all for the sake of comparison.

(1) *A rental for a fixed sum, irrespective of the yield.*—This never takes place in the case of farm lands, and seldom in that of orchards or gardens. It is almost wholly confined to house and shop property.

(2) *Partnerships in farm lands.*—The owner in some cases furnishes the seed, but if so he debits it in some form against the cultivator. The peasant ploughs, sows, reaps, threshes, winnows, and after the payment of the tithe takes from half to two-thirds or three-fourths of the net produce, according to the terms of the agreement, which again are conditional on the richness of the soil and the ease of cultivation.

In all cases the *mîreh* or ground-tax is paid by the proprietor. The houses of the peasants are owned by the proprietor, but occupied by the cultivator rent free.

(3) *Partnership in vineyards, olive, fig, or mulberry orchards.*—This is of two kinds.

(*a*) *Partnership by work.*—This is where the peasant undertakes to do all the work necessary in an established and producing orchard or fruit farm, for the fourth part of the net produce, the manure being furnished by the owner or hirer as agreed. In the case of mulberry orchards the peasant often undertakes to raise the silk-worms, cutting the leaves from the trees to feed them, and gathering the cocoons when they are finished, but not attending to the mulberry orchard. For this service he receives a fourth of the price of the cocoons. He is called *Sherik-el-Hawa.*

(*b*) *Partnership by paying the estimated price of the produce* (*Sharakat-el-Musâqâh*).—In this form of partnership a mulberry or olive orchard is appraised as to the probable yield of leaves or olives, and the cultivator pays the owner in advance a certain agreed sum on each load of leaves or measure of olives. When the crop is realised, there is a second appraisement of the actual yield, and if it prove greater than was expected, the tenant pays in proportion to the increase. If, on the other hand, the yield is less than was paid for the proprietor refunds the difference. In this form of partnership the cultivator is obliged to do the work, and to pay half the price of the manure used.

II.—Agriculture.

1. *Measures of Land.*

There are few more perplexing topics of conversation with Arabs than those which relate to weights and measures. This arises from the diversity of standards in different places. The unit of measures of length, the *Dhira'*, the analogue of our *ell*, differs from two feet three inches to two

feet five and a half. The *Qasabah*, the analogue of our *rod*, *perch*, or *pole* is reckoned in Damascus, and those places which derive their usages from that capital, at seven and a half dhiras. In Egypt it was until recently twenty-four *qabdahs*, the qabdah being the measure of a man's fist with the thumb erect, making about six and a quarter inches. According to this standard the *qasabah* was about twelve and a half feet. According to some it was ten cubits, the cubit itself differing in length. The qasabah is said by some to be forty dhiras.

The *Feddân* is, roughly speaking, the amount of land which a yoke of oxen will plough in a day. The term feddân originally signified the bull, or the yoke of cattle, with which one ploughs, and corresponds to the *jugerum* and acre. But there is a great diversity of statement in regard to the extent of this measure. A Damascene informed the writer that it was 260 square gasabehs. Some even say 260 qasabehs square, which would amount to from five to six square miles, a statement palpably preposterous. Others say $333\frac{1}{3}$ square qasabahs ; others still 400 square qasabahs.

2. *Agricultural Implements.*

These are the *pick* (*ma'wal*), the *hoe* (*majrafeh*), the *spade* (*refsh*), the *rake* (*shaukah*), an implement seldom used by the Arabs, the *hatchet* (*fâs*), the *axe* (*farrâ'ah*), the *pruning hook*, (*manjal*), the *knife* (*sikkîn*), the *plough* (*miḥrath*), the *threshing-drag* (*nauraj*, in popular use *mauraj*), the *winnowing-fork* (*midhrâyeh*), the *basket* (*sabârîyeh*), the *large basket* (*zenbîleh*), the *sledge* (*mihaddah*), the *crowbar* (*mukhl*), the *wedge* (*isfîn*).

The *pick* is a mattock with one short blade, six to eight inches long, and about two inches broad at the tip, which is somewhat sharp, so that the farmer can cut up roots and small shrubs with it. The other blade is longer and stouter, and about three quarters of an inch broad at tip, and usually furnished with two slightly prominent teeth. This blade is used to pick the soil, pry out stones, and even to break friable stones and rocks. The handle of the pick is usually about two feet six inches long.

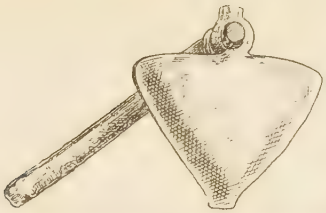
SIDE VIEW OF THE PICK. (المغوال)

END VIEW.

Both blades are bent at an angle to the handle, suited to the habits of the Orientals, but seeming inconvenient to the Occidental.

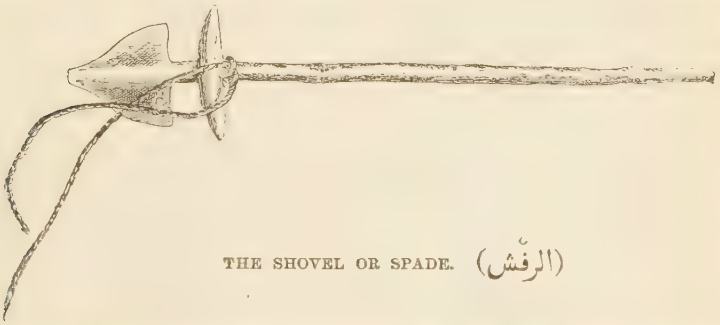
The *hoe* is triangular in shape, with rounded angles at the base, and a rectangular truncate tip : the handle is inserted near the base, in a

projection with a hammer-like tip. Sometimes the tip of the hoe is rounded.



HOE. (المَجْرَفَة)

The *spade* is rather a shovel, triangular in shape like the hoe, but with sharp basal angles, and a somewhat tapering truncate tip. The handle varies. Sometimes it is made with a crossbar at the upper end. Sometimes it is, as in the figure, a simple cylindrical stick, with a crossbar (*madrabeh*) at the bottom to facilitate pressure with the foot in digging.

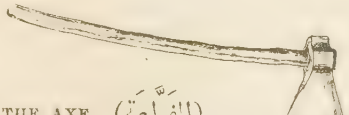


THE SHOVEL OR SPADE. (الرفْش)

When soil is to be removed or turned over with this shovel, a rope is usually fastened to the lower end of the handle, and a labourer on each side takes hold of one end of the rope, and they pull the clod of earth to the desired position. Thus a shovel requires three labourers: one to thrust the blade into the soil, and two to pull the clod. It is impossible to convince the people of this country that this is not the most economical and easy way to do the work required.

The *rake* is rather a European innovation, and little used by the natives, except where they are in Frank employ.

The *hatchet* is a poor and clumsy blade, oblong in shape, and badly tempered.



THE AXE. (الفَرَّاصَة)

The *axe* is a larger form of the same, with an oblong blade, usually of iron or untempered steel, the edge of which turns in using, and is

quite incapable of doing woodman's work according to western ideas. The helve of both axe and hatchet is usually straight.

The *pruning hook* is an iron instrument, with a blade of a semilunar shape, about ten inches long, and, like all iron implements in the East,

The Pruning Hook.
(المنجل)

poorly if at all tempered. The handle is made hollow, to allow of a wooden helve if necessary.

The *knife* has two forms. One is a clasp knife of the rudest construction, falcate in shape, with a wooden or bone handle. The other is a sheath knife, usually about eight inches long, linear-lance shaped, and

The Sheath Knife and Sheath.
(الغمد السكنى)

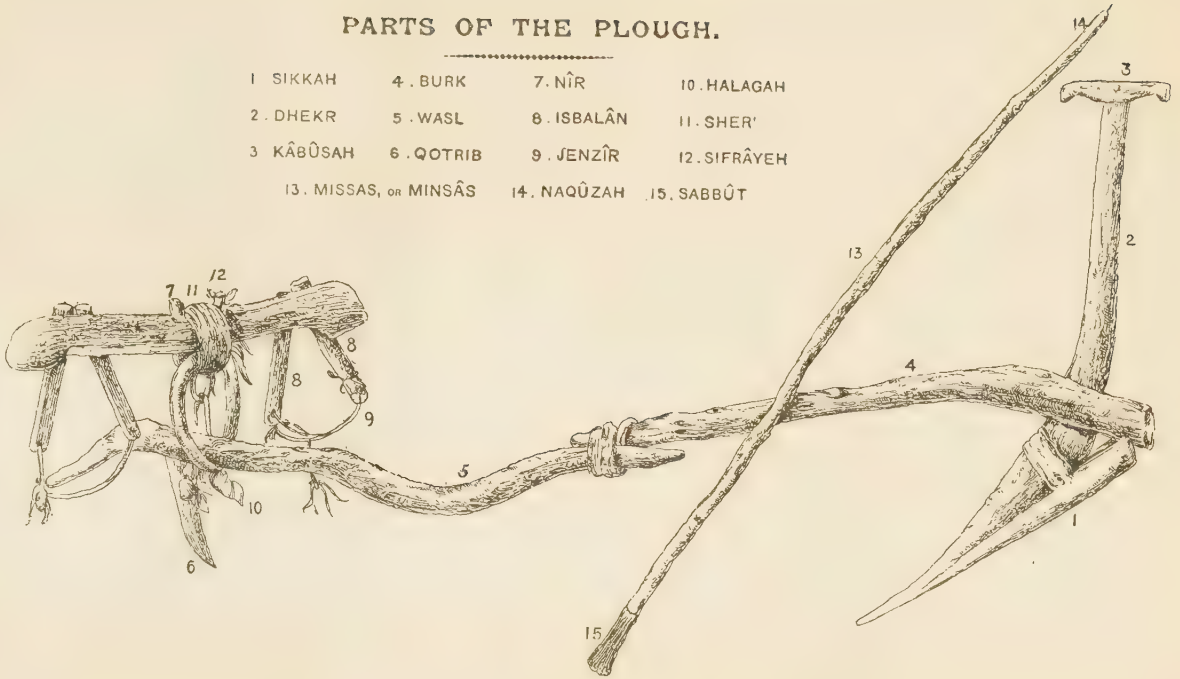
with one cutting edge. It is carried in a wooden sheath, stuck in the belt.

The *plough* is an exceedingly primitive implement. It consists of the following parts : (1) The share (*sikkah*), a conical, very acuminate shoe of iron, with no flaring portion as in our ploughshares, made hollow to receive the point of the (2) shank (*dhakr*), which is a piece of tough wood, usually oak, about two feet six inches long, bent forward below its middle, and sharpened to go into the sikkah. (3) The handle (*kâbûsah*), a crossbar of the same tough wood, into which the shank is morticed, and fastened by a wooden pin. This handle is of a convenient height, to be held by the hand of the driver below his waist. (4) The pole (*bŭrk*), which is a hump-backed piece of the same tough wood, morticed at its joint with the shank. To lengthen this out in the proper shape there is attached by a cord to its free extremity (5) the (*wasl*), which is a pot-bellied pole, with a blunt end deflexed about six inches from the tip at an angle of about 130 degrees, to get it out of the way of the muzzles of the oxen. From two to three inches behind this angle is morticed into the wasl, at an angle of about 75 degrees (6) a pin (*qotrîh*), about six inches long, to receive the ring of the yoke and prevent it from slipping.

(7) The yoke (*nîr*) is composed of a horizontal bar of wood, with knobbed extremities, but with no hollowed-out portion to receive the nape of the neck of the ox. In place of the *bow*, two pins (8) (*isbalân*) are let into holes in the nîr, at angle of about 30 degrees to each other, their upper extremities being about 3 inches apart, to receive the nape of the neck. When adjusted, these are fastened by a leather thong, or a chain (9) (*jenzîr*). (10) The ring (*ḥalaqah*) is a tough branch bent in a rude elliptical form. It is tied to the nîr by (11) a leather thong (*sher'*), between (12) two pintles (*sifrâyah*), which keeps it in place.

PARTS OF THE PLOUGH.

1. SIKKAH
2. DHEKR
3. KÂBÛSAH
4. BURK
5. WASL
6. QOTRIB
7. NÎR
8. ISBALÂN
9. JENZÎR
10. HALAGAH
11. SHER'
12. SIFRÂYEH
13. MISSAS, OR MINSÂS
14. NAQÛZAH
15. SABBÛT



The goad (*missâs*, or *minsâs*, 13) is a rod of stiff wood, about 7 to 8 feet long, with a sharp point (*naqâzah*, 14) at one end, with which to prod the cattle, and a small shovel-shaped shoe (*sabbât*, 15) at the other, with which to clean the share of its clods.

Cows, steers, or bulls are most commonly used for ploughing. Sometimes an ox and an ass are yoked together; occasionally an ass and a camel are yoked fellows. In that case the disparity in strength and height is corrected by a difference in the length of the two sides of the yoke. Buffaloes, mules, and horses are occasionally used in ploughing.

The *nauraj*, or *threshing drag* (corrupted in common speech into *mauraj*), is of the shape of our ordinary stone-drag, the lower surface being beset with flints or chips of basalt, which are let into holes in the wood, and cut the straw into bits while threshing out the grain. The driver stands on the drag, or sometimes lies out on it at full length, and is often seen asleep, while the horse or cow lazily pull the drag round and round the central heap. The cattle are sometimes muzzled, but often allowed to help themselves as they pursue their weary task. The Mosaic law forbade the use of the muzzle.

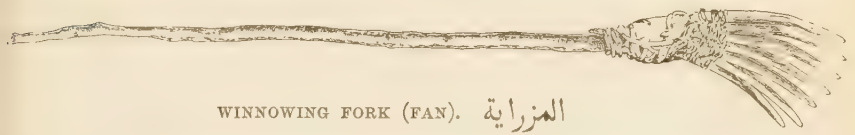
In northern Syria, in place of the *nauraj*, the *ḥîlân* is the implement used in threshing. It consists of a stout oaken frame, into the sides of

A threshing floor, with a heap of wheat straw in the centre. A part of this has been spread out on the threshing floor and is being cut up and threshed out by the *hîlan*. The driver sits on the rude chair, to add his weight to that of the implement. In the distance are other heaps of straw on their threshing floors.

which are let two axles, on which are fastened circular plates of iron, which are so arranged on each axle as to enter the inter-spaces of those on the opposite axle, and so cut the straw into bits about an inch or two in length. A rude chair is fastened to the frame, and the driver sits on this while threshing. This implement seems to foreigners more efficient and rational than the nauraj, yet those whose ancestors have used the latter do not abandon it for the former.

The harness consists of a collar (*kiddanîyah*) and traces (*jarrârât*).

The winnowing-fork (*midhrâyah*) consists of a handle (*'asâyah*) of wood, with two or more natural prongs, to which two or three more are tied by leather thongs.



WINNOWING FORK (FAN). المزراية

The sheaves of grain are piled in the centre of the threshing floor in such a way as to leave a circular path about 8 feet wide around the heap. A number of the sheaves are undone and tossed loosely around on this clear space, and the drag driven around until all the grain is shelled out, and the straw (*qosh*) cut to the requisite fineness, when it is called *tibn*. The mixed grain, chaff and tibn are then thrown on one side, and a new supply of sheaves spread out. When all the sheaves have been threshed, the winnowing commences; the winnower stands with his side to windward and tosses a fork full of the mixed grain and straw high into the air; the chaff is carried to a distance of 10 or 15 feet or more; the tibn is carried to a shorter distance and falls by itself, while the heavy grain and the joints of the stems (*qasal*) falls near the point from which it was thrown into the air. By continued repetition of this process the three sorts of produce of the threshing floor are well sorted, the grain and tibn for use; the finer "chaff, the wind driveth away."

Much earth and many small pebbles are found among the grain; these are afterwards separated in the following way:—A wooden tray, about 2 feet 6 inches broad, with a rim about an inch and a-half high around three-quarters of its circumference, is held in the two hands of the operator, a pile of grain, with its impurities, is placed on the tray, which is then worked up and down by the operator with a jerking motion, so as to toss the grain a few inches each time into the air, while giving it at the same time a little forward impulse away from his body toward the free border of the tray. The wheat being lighter than the pebbles and the earth, gradually separates from them and falls in driblets over the edge of the tray, while the stones gravitate toward the rim of the tray, and are then thrown aside; the process, which involves much skill and experience, is a very effective one.

These threshing floors, with their varied and picturesque industries

form a very prominent feature of the landscape in the neighbourhood of the villages.

There are many plains of great fertility and of considerable extent, as those of Cœlesyria, Philistia, Jericho, Esdraëlon, 'Akkar, Ḥems, and Ḥaurân; but a large part of the country is mountainous, and the soil must be laboriously worked over with the mattock and the hoe, and the stones picked out, before it is ready for the plough. This process is called *naqb*. It consists in turning over the soil, prying out the rocks, and removing the stones from the loam, then building terrace walls of rubble, and levelling off the terrace (*jell*). Such terraces are from a few feet to many yards in width; the narrower ones are adapted to trees, the wider to grain.

It is not customary to manure soil for grain crops; but fertilizers are freely used for trees, especially the mulberry, orange, lemon, and other fruit trees.

The time for ploughing varies according to the situation and the crop. On the sub-Alpine slopes of Lebanon the ground is irrigated by the snow-water, which pours down in numerous rills from the great drifts on the higher peaks; these fields, from 5,000 to 6,000 feet above the sea level, are ploughed in September and October, and sown with wheat and barley. The grain sprouts, and the plants, after attaining a certain height, are overlaid with snow, as with winter wheat in colder climates. When the snow melts in the later spring, the plants start up with a vigorous growth and soon mature their grain.

On the lower levels, where snow seldom or never falls, the ground is ploughed after the first rains of autumn, and the grain grows steadily until the harvest, which varies in time from March and April in the Jordan Valley, to May, June, and July on the uplands. For the summer crops, as *sorghum*, *sesame*, and *tobacco*, the ground is ploughed in spring.

The mulberry, fig, and olive orchards are ploughed in the spring, when the leaves are starting, and sometimes again when the first crop of leaves has been stripped off and the second is sprouting, then again in the autumn after the first rains. At the time of the latter ploughing the manure is usually worked into the soil.

The vineyards are ploughed in the latter days of winter, and early spring, before the leaves sprout, while the dry stalks of the vines lie along the ground to all appearance dead.

The grain fields of the mountains are ploughed and sown every year, and seldom is any attention paid to the rotation of the crops. In the great grain fields of Cœlesyria, Damascus, Ḥaurân, and other parts of the country, a portion of the land lies fallow alternate years, or the crops are rotated.

The ground is usually seeded before being broken by the plough, and the seed ploughed in. If the ground be fallow it is broken by the plough, then seeded, and the seed ploughed in.

In Southern Palestine a kind of funnel is attached to the handle of

the plough, and seed placed in this funnel is dropped into the furrow as the plough moves along.

So far as the writer's knowledge extends, the people have no religious ceremonies connected with ploughing, sowing, or reaping.

Irrigation is practised in various ways. In the gardens and orchards bordering large rivers, the water is often raised by immense wheels, turned by the current of the river. These are called *Na'ûrahs*. The *Shadûf* of Egypt is not, so far as the observation of the writer has extended, used in Syria and Palestine. Aqueducts, usually open, convey river water to the gardens and fields, where it is distributed by ditches and furrows, the latter being opened or closed by the hoe or the foot. Where water is brought in pipes, which are usually made of clay, it is raised to a head by means of upright shafts, which act on the inverted syphon principle, and give force enough for fountain jets of considerable height.

The rice fields in the neighbourhood of Marash are flooded with water, as are also some of the vegetable gardens, where aquatic plants like the Colocasia esculenta (*golqâs*) are cultivated.

Irrigation wells are found in many parts of the country, the water being raised by means of a bucket-wheel (*na'ûrah*), turned by a horse, mule, or horned cattle. The water is usually conveyed to the different parts of the garden by conduits raised on high stone walls, or colonnades and arches.

Subsoil drainage is not understood, and indeed is seldom called for. Recently, however, a large tract of land has been reclaimed from the Hûleh by the Sultan, who owns it as a private property, and cultivates it by means of muzâri'în. There are considerable marshy tracts in various parts of the land, which await the sleeping enterprise of the country to become fruitful fields and orchards. Such are the marshes of the Kishon, of Cœlesyria, of Antioch, Damascus, Alexandretta and others.

Gleaning is no longer a recognised industry. The cultivators strip the fields and trees, and leave not enough for a barnyard fowl or a sparrow to glean. They pull off the branches of the very shade trees by their own houses to feed the leaves to their cattle. There is, however, one usage which somewhat resembles gleaning. It grows out of the habit of the fig-tree. The fig harvest commences in July or August, and the figs ripen sucessively during two or three months. It is customary to have the trees watched by a *Nâṭûr* during the period of fruit-bearing. But after the Feast of the Cross, which occurs in September, the Naṭûr is drawn off, and passers-by may thereafter pluck the fruit with impunity. If there be fruit on the trees, as generally happens, the owner will not fail to visit them, and glean them himself to the very last fig, but he is not suprised to find himself anticipated by other gleaners, who cannot, however, take all the fruit at once, as it only ripens a few figs at a time, from day to day.

The principal *Forage Plants* of the country, beside the numerous native grasses and leguminous herbs, are :—

Lucerne or Purple Medick. (*Qutât, Duḫraijeh*) Medicago sativa, L.
Vetch. (*Bâqiyah*) Vicia sativa, L.
Vetch. (*Kirsenneh*) Vicia Ervilia, L.
Alexandrian Clover. (*Bersîm*) Trifolium Alexandrinum, L.
Sainfoin. Onobrychis sativa, L.
Barley. (When cultivated as a forage plant, *qosîleh*) Hordeum vulgare, L.

The principal cultivated *Seeds and Grains* used as food are :—
Fitches. (*Ḥabbat-el-barakah, El-ḥabbat-es-saudâ*) Nigella sativa, L.
Lupine. (*Tŭrmŭs*) Lupinus Termis, Forsk.
Fenugreek. (*Ḥilbah*) Trigonella Fænum-Græcum, L.
Chick Pea. (*Ḥŭmmŭṣ*) Cicer arietinum, L.
Horse Bean. (*Fûl*) Vicia Faba, L., or Faba vulgaris, L.
Lentiles. (*'Adis*) Ervum Lens, L.
Peas. (*Bizellah ; Bishleh*) Pisum sativum, L.
Mâsh. A variety of Vigna Nilotica, L. A seed of an olive-green colour, a little larger than a hempseed.
String Bean. (*Lubiyah-beledîyeh*) Vigna sinensis, L.
Kidney Bean. (*Lubiyah-ifranjîyah*) Phaseolus vulgaris, L.
„ (*Lubiyah-quṣaṣ*) Perhaps a variety of Phaseolus multiflorus.
Carob. St. John's Bread. (*Kharrûb*) Ceratonîa Siliqua, L. The parenchyma of the pods is the part used as food. It is principally made into dibs, a sort of inspissated syrup.
Sesame. (*Simsŭm*) Sesamum Indicum, L.
Barley. (*Sha'îr*) Hordeum distichum, L., and H. vulgare, L.
Oats. (*Sheifân, Shufân*) Avena sativa, L. Sparingly cultivated in northern districts.
Wheat. (*Qomḥ Ḥinṭah*) Triticum vulgare, L.
Sorghum. (*Durrah beiḍa*) Sorghum annuum, Pers.
Maize. *Durrah ṣofra*) Zea Mays, L.
Millet. (*Dukhn*) Panicum miliaceum, L.
Rice. (*Arizz, Rŭz*) Oryza sativa, L.

The principal *Vegetables* are :—
Pepperwort. (*Reshâd*) Lepidium sativum, L.
Cresses. (*Jerjâr, Qurrah, Reshâd*) Nasturtium officinale, L.
Cabbage. (*Melfûf*) Brassica oleracea, L.
Cauliflower. (*Qunnabît, Qarnabîd*) Brassica oleracea, L.
Turnip. (*Lift, Suljŭm*) Brassica rapa, L.
Radish. (*Fijl*) Raphanus vulgaris, L.
Caper. (*Kabar*) Capparis spinosa, L.
Purslane. (*Boql*) Portulaca oleracea, L.
String Bean. (*Lubiyah*) Vigna sinensis, L.
Kidney Bean. (*Lubiyah-ifranjîyah*) Phaseolus vulgaris, L.
Kidney Bean (variety). (*Lubiyat-quṣâṣ*) P. multiflorus.

Horse Bean. (*Fûl*) Faba vulgaris, L.
Peas. (*Bizellah*, *Bishleh*) Pisum sativum, L.
Cucumbers. (*Khîyar*) Cucumis sativus, L.
Muqti. (*Muqti*) Cucumis Chate, L.
Squash. (*Kûsa*) Cucurbita Pepo, L.
Pumpkins. (*Jelŭnṭ*) „ maxima, Duch.
Parsley. (*Buqdaunis*) Petroselinum sativum, L.
Carrots. (*Jezar*) Daucus carota, L.
Lettuce. (*Khus*) Lactuca sativa, L.
Turmeric. (*Zafarân*) Carthamus tinctorius, L. Used for tinging rice in cooking.
Tomatoes. (*Banadora*) Lycopersicum vulgare, L.
Potato. (*Baṭaṭa*) Solanum tuberosum, L.
Egg-plant. (*Beitinjân* or *Badhinjân*) Solanum melongena, L.
Spinach. (*Sbânikh*) Spinacea oleracea, L.
Beets. (*Shemandûr*) Beta vulgaris, L.
Colocasia. (*Qolqâs*) Colocasia esculenta, Schott.
Onions. (*Baṣal*) Allium cepa, L.
Garlic. (*Tûm*) Allium sativum, L.
Asparagus. (*Halyûn*) Asparagus acutifolius, L.

The *Fruits* are :—
Sweet Sop (*Shajarat el Qashṭa.*) Anona squamosa, L., is sparingly cultivated.
Grapes. (*'inab*) Vitis vinifera, L. There are very numerous varieties—from the Zante Currant to berries as large and as firm as a Lady Apple. They are of all colours from light green to black.
Oranges. (*Burdiqân*, *Bartughâl*) Citrus aurantium, L.
Bitter Orange—Seville Orange. (*Naring*, *Kubbeid*, *Abu-Sufeir*) C. Bigarada, L.
Mandarin Orange. (*Yusuf Effendi*) C. Madarensis, L.
Lemon. (*Leimûn Ḥamiḍ*, *Leimûn Maliḥ*, *Leimûn Marâkabi*) C. Limonum, Risso.
Sweet Lemon. (*Leimûn Ḥelu*) C. Limonum, var dulcis.
Citron. (*Kibbâd*) C. medica, Risso.
Jujube Berries. (*'ennâb*) Zizyphus vulgaris, L.
Nabq. Christ-Thorn. (*Nabq*, *Sidr*) Z. Spina Christi, L.
Cherry. (*Karaz*) Cerasus avium, L. Cultivated from Ḥems northward.
Plum. (*Khaukh*) Prunus domestica, L. Many fine varieties are cultivated in Syria.
Cerasia. (*Qarâsiah*) Prunus Cerasia, Bl. A variety similar to the damson plum of our orchards.
Jenerik or Jarink. (*Jenârik or Jarink*) A plum, in shape like a cherry, as large as a walnut, but with a plum stone.
Blackberry. (*'ulleiq*) Rubus cæsius, L., R. tomentosus, Borckh, and R. discolor, Nees.

Strawberry. (*Kubâsh*) Fragaria vesca, L.

Pear. (*Ijjâs*, vulgo *Najâs*) Pyrus communis, L. The wild Syrian pear, P. Syriaca, Boiss, produces small, acerb, almost inedible fruits.

Apple. (*Tiffâḥ*) Malus communis, Desf., is barely found in the north of Syria, but many poor varieties are in cultivation.

Quince. (*Sepherjel*) Cydonia vulgaris, Pers. Several excellent varieties are cultivated.

Apricots. (*Mishmish*) Armeniaca vulgaris, L. Several fine varieties are cultivated, among them the *Lauzi*, the *Kuleibi*, and the *Fârisi*.

Peaches. (*Derraqn*) Persica vulgaris, L. The peaches of Syria are inferior.

Nectarines are cultivated in Damascus.

Service Berries. (*Makhlis, Maḥrîs*) Sorbus trilobata, Labill.

Medlar. Mespilus Germanica, L. Cultivated in Northern Syria.

Hawthorn Berries. (*Za'rûr*) Cratægus Azarolus, L. Of this there are red- and yellow-fruited varieties. The fruit is as large as a small crab-apple.

Japanese Medlars. (*Enchidinia*) Photinia Japonica, are sparingly cultivated.

Wild Gooseberry. Ribes Orientale, Poir, grows wild in Higher Lebanon and Anti-Lebanon.

Indian Fig. (*Subbeir*) Opuntia Ficus-Indica, Haw.

Myrtle Berries. (*Ḥab-el-Âs, Ḥanbelâs*) Myrtus communis, L.

Pomegranates. (*Rummân*) Punica granatum, L.

Cornels. Cornus Mas, L. In the woods of Northern Syria.

Persimmons of a large size are cultivated in Northern Syria.

White Mulberries. (*Tût*) Morus alba, L. Cultivated for silk worms.

Purple Mulberries (*Tut Shâmi*) Morus nigra, L. A delicious fruit.

Figs. (*Tîn*) Ficus carica, L. Of the fig numerous varieties are cultivated.

Sycomore Figs. (*Jummaizi*) Ficus Sycomorus, L. A poor fruit.

Olives. (*Zeitûn*) Olæa Europæa, L.

Bananas. (*Mauz*) Musa sapientium.

Dates. (*Belḥ, Tumar*) Phenix dactylifera, L. Several varieties are cultivated. The pressed, dried fruit is called *Quṭah*.

The *Nuts* are :—

Pistachio. (*Fistuq*) Pistacia vera, L.

Almonds. (*Lauz*) Amygdalus communis, L.

Walnuts. (*Jauz*) Juglans regia, L.

Filberts. (*Binduq*) Corylus avellana, L.

Beechnuts. Fagus sylvatica, L. In Amanus.

The *Melons* are :—

Water Melon. (*Battîkh akhdar ; Jebas*) Cucumis sativus, L.

Musk Melon. (*Battîkh asfar*) Cucumis citrullus, L.

The *Medicinal Plants* are :—

Poppy. (*Khishkhâsh*) Papaver somniferum, L. It is cultivated in Syria for its heads, out of which a sedative decoction is made. Opium is not produced in Syria and Palestine.

Mustard. (*Khardal*) Sinapis alba, L. = *Khardal abiaḍ*. Sinapis arvensis, L. = *Khardal barri*.

Marsh Mallow. (*Khiṭmiyeh*) Althœa officinalis, L.

Round-leaved Mallow. (*Khubbaizî*) Malva rotundifolia, L.

Violet. (*Benefsej*) Viola odorata, L.

Liquorice. (*'Urq-es-Sûs*) Glycyrrhiza glabra, L.

Senna. (*Senâ-mekki*) Cassia obovata, Collad.
(*Senâ-sa'îdî*) C. lanceolata, Forsk.

Colocynth. (*Ḥonḍol*) Citrullus Colocynthis, L.

Elaterium. (*Qiththâ-el-Ḥimâr*) Ecballium Elaterium, L.

Scammony. (*Soqmoniyeh, Maḥmudiyeh*) Convolvulus Scammonia, L.

Henbane, Hyoscyamus. (*Benj*) Hyoscyamus aureus.

Stramonium. (*Barsh*) Datura Stramonium, L.

Tobacco. (*Tebagh, Titŭn*) Nicotiana Tabacum, L.

Castor Oil Plant. (*Kharwa'*) Ricinus communis, L.

Hemp. (*Qinnab*) Cannabis sativa, L. The extract Cannabis Indica is known under the name of *Ḥashîsh*.

Nutgalls. (*'Ofs*) Galls from various oaks.

Squills. (*Basl el Fâr.*) Urginea Scilla.

The *Aromatics* are :—

Rose. (*Ward*) Rosa Damascena, L. Attar of Rose is distilled from it.

Cummin. (*Kammûn*) Cuminum Cyminnum, L.

Caraway. (*Karâwiyah*) Carum carui, L.

Dill. (*Shibith*) Anethum graveolens, L.

Fennel. (*Shumâr, Shumr*) Fœniculum piperitum, DC.

Origanum. (*Za'tar*) Origanum Maru, L. This may well be the Hyssop of Scripture.

Mint. (*Na'na'*) Mentha sativa, L.

Thyme. (*Za'tar*) Thymus Syriacus, Boiss.

Summer Savory. (*Za'tar*) Satureia hortensis, L.
S. cuneifolia, Ten.

The chief *Industrial Plants* are :—

Soapwort. (*Shersh-Ḥalâwî*) Saponaria officinalis, L.

Cotton. (*Qutn*) Gossypium herbaceum, L.

Flax. (*Kittân*) Linum usitatissimum, L.

Persian Seeds. Rhammus petiolaris, Boiss. Used as a dye.

Butm Seeds. Pistacia mutica, F. and M. The seeds are used in tanning.

Sumach. (*Simmâq*) Rhus Coriaria, L.

Indigo. (*Nîl, Ṣabâgh*) Indigofera argentea, L.

Madder. (*Fuwweh*) Rubia tinctoria, L.

Soda Plant. (*Ushnân, Hashishat-el-Qali*) Salicornia fruticosa, L.

Hemp. (*Qinnab*) Cannabis sativa, L.
Valonia Oak. Quercus Ægilops, L.
Sugar Cane. (*Qoṣab muṣ*) Saccharum officinarum, L.

The principal *Trees and Shrubs used as timber and fuel* are :—

Smoke Plant. Rhus Cotinus, L. *Fuel.*
Tanner's Sumach. (*Simmâq*) Rh. Coriaria, L. Seeds for *tanning.* Wood for *fuel.*
Rh. oxyacanthoides, Dun Fuel.

Terebinth. (*Buṭm.*) Pistacia Terebinthus, L., and its variety Palæstina. *Fuel.*

Muticous Terebinth. (*Buṭm*) P. mutica, F. et M. The typical tree of the Syrian desert. The Arabs gather the small nuts and sell them for tanning purposes. Wood used as fuel.

Mastich. (*Mastîk*) P. lentiscus, L. The inspissated sap used as a *chewing gum*, the wood as *fuel.*

Bân. (*Bân*) Moringa aptera, Gærtn. *Fuel.*

Maple. (*Qaiqŏb*) Acer Hyrcanum, F. et M. *Fuel.*
„ „ A. Monspessulanum, L. *Fuel.*
„ „ A. Syriacum, Boiss. *Fuel.*

Bladder Nut. Staphylea pinnata, L. *Fuel.*

Zaqqûm. (*Zaqqûm*) Balanites Ægyptiaca, Del. *Fuel.* A kind of balsam is prepared from the fruit, and sold at Jericho as *Balm of Gilead.*

Pride of India. (*Zinzilukht*) Melia Azedarach, L. The favourite shade-tree of Syria. Used for *house-timbers* and *fuel.*

Jujube. (*'Ennâb*) Zizyphus vulgaris, Lam. The berries are eaten, and the wood is used as *fuel.*

Christ-Thorn. (*Nabq*, *Sidr*) Zizyphus Spina-Christi, L. *Fuel.* The fruit is *edible*, but astringent.

Lotus. (*Nabq*) Zizyphus Lotus, L. *Fuel.*

Buckthorn. (*Zifrîn*) Rhamnus alaternus, L. *Fuel.* Also an ornamental shrub.

Carob. (*Kharnûb*, *Kharrûb*) Ceratonia Siliqua, L. A fine *shade-tree.* Also cultivated for its *pods* (St. John's Bread, "the husks that the swine did eat"), out of which a sort of syrup is made. Also used for *building purposes*, and *fuel.*

Red Bud. Judas Tree. (*Zemzarîq*) Cercis Siliquastrum, L. *Fuel.*

Shittim. (*Sŭnt*) Acacia Nilotica, Del. A durable wood, used for *building purposes*, and *fuel.*

Shittim. (*'Anbar*) A. Farnesiana, Willd. *Fuel.* The sweet-scented flowers are greatly prized by the Arabs.

Seyal. (*Seyyâl*) A. tortilis, Hayne, and A. Seyyal, Del. Largely used as *fuel*, and in making *charcoal*, which is sold in Egypt.

Almond. (*Lauz*) Amygdalus spartioides, Spach. *Fuel*
„ „ A. communis, L. Used in *building*, and for *fuel.* The green almonds (*Qur'aun el-lauz*) are prized by the natives as a delicacy, and the ripe ones are a considerable product.

Almond. (*Lauz*) A. Orientalis, Ait., and A. Lycioides Spach., are used only as fuel.

Cherry. (*Karaz*) Cerasus avium, L. The fruit is sparingly used in Northern Syria. The wood is valued *for the arts*, and as *fuel*.

Cherry. (*Karaz*) C. microcarpa, C. A. Mey. *Fuel*.

„ (*Maḥleb*) C. Mahaleb, L. *Fuel*.

Plum. (*Khaukh*) Prunus spinosa, L. *Fuel*.

„ „ P. monticola, C. Koch. *Fuel*.

„ (*Khaukh ed-dibb; Braqûq*) P. ursina, Ky. The sour fruit is nevertheless *eatable*. The wood makes good *fuel*.

Plum (*Qarâsia*) P. Cerasia, Bl. The fruit is a delicious sort of Damson Plum. The wood is good *fuel*.

Plum. (*Khaukh*) P. domestica, L. Many varieties are cultivated for *fruit*. All make good *fuel* and *timber*.

Pear. (*Ijjâs; Najâs*) Pyrus Syriaca, Boiss. *Fuel*.

„ „ P. Boveana, Dec. *Fuel*.

Apple. (*Tiffâḥ*) Malus communis, Delf. Cultivated for *fruit*. Its wood is good *fuel*.

Service Tree. (*Makhlîs; Maḥrîs*) Sorbus trilobata, Labill. The small fruit is *eaten*. The wood is good *fuel*.

Service Tree. (*Makhlîs; Maḥrîs*) S Aria, Crantz. *Fuel*.

„ „ S. torminalis, L. *Fuel*.

Medlar. Mespilus Germanicus, L. The fruit is *edible*, and the wood good *fuel*.

Hawthorn. (*Za'rûr*) Cratægus Orientalis, Pall. *Fuel*.

C. Azarolus, L. The fruits are edible, and make a delicious jelly. The wood is excellent *fuel*.

C. Sinaïca, Boiss. *Fuel*.

C. monogyna, Willd. A tree with *beautiful crimson inedible fruits*, as large as a pea. The wood is good *fuel*.

Cotoneaster. Cotoneaster pyracantha, L. A tree with *beautiful crimson inedible fruits*, resembling those of the American mountain ash (Pyrus Americana). Wood makes good *fuel*.

C. nummularia, F. et M. *Fuel*.

Strawberry Tree. (*Qoṭlib*) Arbutus Unedo, L. The berries are *edible*. The wood is a poor *fuel*.

Arbutus. (*Qoṭlib*) Arbutus Andrachne, L. A curious tree or shrub with a red trunk and branches, the outer bark scaling off and leaving the wood bare. *Fuel*.

Bird Lime Tree. (*Dibq; Bumbâr*) Cordia Myxa, L. *Bird Lime* is made from the juice of the berries. The wood is *a poor fuel*.

Storax. (*Hauz, Abhar; Libnah*) Styrax officinale, L. *Fuel*. The resin is the officinal Storax.

Olive. (*Zeitûn*) Olæa Europæa, L. The *berries* are one of the chief

products of Syria and Palestine. The wood is extensively used for *articles of vertu*, and is *excellent fuel.*

Phillyrea. Phillyrea media, L. *Fuel.*

Fontanesia Fontanesia phillyreoides, Lab. *Fuel.*

Ash. (*Dardâr*) Fraxinus Ornus, L. A fine *timber tree*; also highly valued for *fuel.*

F. oxyphylla, M. B. *Building purposes and fuel.*

Silver Berry Tree. Eleagnus Hortensis, M. B.. *Fuel. Hedges.*

Laurel. (*Ghâr*) Laurus nobilis, L. *Fuel.*

Castor Oil. (*Kharwa'*) Ricinus communis, L. The seeds furnish an oil which is used for *lighting purposes*, as well as *a cathartic.* The wood makes *poor fuel.*

Box. Buxus longifolia, Boiss. Wood used *in the arts*; also as *fuel.*

Fig. (*Tîn*) Ficus Carica, L. The *fruit* is a main reliance of the people. The leaves are *fodder* for cattle. The wood is *a poor fuel.*

Sycamore. (*Jummaiz*) Ficus Sycomorus, L. A *timber tree.* Wood makes *good fuel.* Fruit *edible* but poor.

False Sycamore. (*Ḥa'nâd*) F. pseudosycamorus, Dec. *Fuel.*

Hackberry. (*Mais*) Celtis Australis, L. A *shade tree* somewhat resembling the elm. The wood is good *timber* and *fuel.*

Walnut. (*Jauz*) Juglans regia, L. A magnificent *shade tree*, usually near fountains. The wood is much used in *furniture making.*

Mulberry. (*Tût*) Morus alba, L. The leaves are the *food of the silkworm*, and *fodder for cattle.* The wood is much used in *the arts*, and as *fuel.*

Black Mulberry. (*Tût Shâmi*) M. nigra, L. The berries are a *luscious fruit.* The wood is valuable as *timber* and fuel.

Plane Tree. (*Dilb*) Platanus Orientalis, L. A fine *timber tree*, growing along the river bottoms. Also good *fuel.*

Evergreen Oak. (*Sindiân*) Quercus coccifera, L. *Shade tree*, especially about tombs. Gives good *timber* and *fuel*

Portuguese Oak. (*Mellûl*) Q. Lusitanica, Lam. *Timber* and *fuel.* A fine *shade tree*, but with leaves deciduous in autumn.

Scrub Oak. Q. Ilex, L. *Fuel.*

„ „ Q. Cerris, L. *Timber* and *fuel.*

Ehrenberg's Oak. Q. Ehrenbergii, Ky. *Timber* and *fuel.*

Valonia Oak. Q. Ægilops, L. The *cupules* are used extensively in *tanning.* The wood makes excellent *timber* and *fuel.*

Valonia Oak. (*Lŭq*) Q. Look, Ky. *Fuel.*

Lebanon Oak. (*Sindiân*) Q. Libani, Oliv. *Timber* and *fuel.*

Beech. Fagus sylvatica, L. The nuts *are eaten.* The wood makes good *timber* and *fuel.*

Filberts. Hazel-Nuts. (*Bindŭq*) Corylus Avellana, L. *Timber* and *fuel.*

Iron Wood. Carpinus Duinensis, Scop. A *hard timber tree.* Wood excellent *fuel.*

Hop Hornbeam. Ostrya carpinifolia, Scop. *Fuel.*

Alder. (*Vaght*) Alnus Orientalis, Dec. A *shade tree* growing along streams. Furnishes good *timber* and *fuel.*

Willow. (*Ṣifṣaf*) Salix Safsaf, Forsk. *Timber* and *fuel.*

Brittle Willow. (*Ṣifṣaf*) S. fragilis, L. *Fuel.*

White Willow. (*Ṣifṣaf*) S. alba, L. *Fuel.* The twigs are used for *basket work* and *making hedges.*

Weeping Willow. (*Ṣifṣaf*) S. Babylonica, L. A fine *shade tree.*

Caprea Willow. (*Ṣifṣaf*) S. Caprea, L. *Fuel.*

Pedicelled Willow. (*Ṣifṣaf*) S. pedicellata, Desf. *Fuel and baskets.*

Black Willow. (*Ṣifṣaf*) S. nigricans, Fries. Twigs used in *basket work.* Wood used as *timber* and *fuel.*

White Poplar. (*Ḥaur*) Populus alba, L. A tree with a *tall, straight trunk*, much used for *roofing timbers*; also for house *carpentry* in the interior. It is extensively cultivated throughout the country, in the neighbourhood of watercourses.

Euphrates Poplar. (*Ḥaur*) P. Euphratica, Oliv. *Timber* and *fuel.*

Black Poplar. (*Ḥaur*) P. nigra, L. *Timber* and *fuel.*

Pyramidal Poplar. (*Ḥaur*) P. pyramidalis, Roy. *Timber* and *fuel.*

Stone Pine (*Snûbar*) Pinus Pinea, L. A fine tree with a spherical head, but usually trimmed into a palm-like shape. Furnishes very *heavy beams* and good *fuel.* It is not often used in house carpentry, except for roofing. The trunks support the heavy earthen roofs of the flat-topped houses.

Aleppo Pine. (*Arz*) P. Halepensis, Mill. *Timber* and *fuel.*

Bruttian Pine. (*Snûbar*) P. Bruttia, Ten. *Timber* and *fuel.*

Cedar of Lebanon. (*Arz, Ibhŭl*) Cedrus Libani, Barr. *Timber* and *fuel.*

Cilician Fir or Spruce. Abies Cilicica, Ant. and Ky. *Timber* and *fuel.*

Cypress (*Sarŭ*) Cupressus sempervirens, L. A *shade tree*, especially used in cemeteries.

Large-fruited Juniper. (*Difrân. Arditsh*) Juniperus drupacea, Labill. *Timber* and *fuel.*

Large-fruited Juniper (*Difrân. Arditsh*) J. macrocarpa, L. *Timber* and *fuel.*

Tall Juniper. (*Sherbîn*) J. excelsa, M.B. *Timber* and *fuel.*

Phenician Juniper. (*Sherbîn*) J. Phœnicea, L. *Timber* and *fuel.*

Yew. (*Illeden*) Taxus baccata, L. *Fuel.*

Besides the above-mentioned trees, there are used as fuel almost all the shrubby and thorny plants of the country. Some—as *Billân* (Poterium spinosum, L.), several species of Genista, Spartium, Salvia, Calycotomo- - are used even in burning lime and heating ovens, as well as in cooking.

III.—Physical Characteristics of the People.

The people of Syria and Palestine are, as a rule, shorter of stature than those of northern Europe. It is uncommon to see a man over

5 feet 6 inches in height. Women are proportionally smaller than those of Europe. In a large assembly of natives, with a few Franks interspersed, the Franks generally overtop all about them by 2 or 3 inches or more. Nevertheless, tall men are occasionally seen, and a few tall women.

The inactive habits of citizens, and their free use of fatty articles of diet, cause a tendency to corpulency, which is especially noteworthy in the women. Most of them are embonpoint, and many, even quite young girls, are unpleasantly obese.

The features of the people are in general good, but differ much by reason of sect and habits; as a general rule, Christian women are better-looking than non-Christian. This results from their greater freedom, which allows them more exercise, and from their greater intelligence, which adds an indefinable charm to female features. Heredity strengthens these qualities. Brunettes are more common among the non-Christians than among the Christians, although many of the Christian women are quite dark complexioned. Many, however, are exceedingly fair. A fair complexion is always considered more beautiful than a brunette. The young men of the Mohammedans have little or no advantage in point of personal appearance over the Christians, but in later life the influence of belonging to the ruling class tells on the development of the countenance, and elderly Mohammedan men are in general finer looking than elderly Christian men.

The Mohammedan type of countenance is a long oval, with regular features, often but not always Semitic in cast, with dark hair, dark eyes, straight or slightly aquiline nose, a good mouth, a fair facial angle, usually rather ugly ears, and a good, average chin. The young girls even are rarely pretty. The old women are exceedingly haggish. This results less from natural defect of conformation than from the unbridled temper in which they constantly indulge from childhood. The voice of Mohammedan women is shrill, spiteful, and passionate. The lives of unrestrained passion are soon deeply sculptured into their countenances, and spoil what may have been there of natural beauty.

The Christian type of countenance is a little more rotund, the features of the women are in general decidedly more comely, and the complexion fairer. Many of the young women are beautiful. The forehead is broad and low, the hair usually dark, sometimes a light brown, very rarely red. The eyes are usually dark hazel, sometimes blue, generally fine. The Maronites are of a darker complexion than the Greeks and Greek Catholics. The Armenians are darker than either, in fact, always brunettes. In general, it may be said that the faces of the Christians, men and women, are regular, pleasing, and, as a whole, there are less ugly persons in a thousand than would be the case in most countries of Europe.

The Druze type strongly resembles the city Arab type of Arabia. The men are for the most part handsome, but the women are seldom beautiful.

The figure of the native woman is originally good. The young girls

have full busts, and, but for the disproportionate development of the abdomen from gross feeding and inordinate drinking of water, would be graceful. Those women who go to the fountains, and carry water jars and other burdens on their heads, acquire a very erect port, and move with precision and grace. But the slatternly dress, and some peculiarities in the mode of lactation, soon spoil female figures here, and, after twenty-five years of age, one rarely sees a woman who, by the greatest stretch of politeness, could be called graceful.

The mountaineers, and inhabitants of the interior table-lands, have great powers of endurance, as is shown by the long journeys which they take, and the fatigue and exposure which they bear, and the long continuance of labours which might be expected to wear out their vitality. For example, muleteers will start at daybreak, having fed and groomed their animals before light, and walk after them all day long, and then lie down in their 'abâyeh to sleep on the hard ground. Their food during this long period will perhaps have been bread with olives or cheese, and may be an onion or a few bunches of grapes.

The porters of the cities carry immense weights on their backs. This very morning the writer saw one carrying five dressed sheep on his back, with the thermometer at 95° F. in the shade.

No doubt the endurance of the fatigues and exposure to which many of the peasantry are subjected is largely attributable to the absence of alcoholism in the system. To the same cause is to be attributed the excellent results of surgery among this people. Blood-poisoning is far more rare than among the alcohol-sodden people of Europe.

But although the peasantry are a fairly hardy race, great physical strength is not a characteristic of the people. Their meagre diet forbids this. Eating flesh but seldom, and living mainly on bread, milk and its derivatives, and vegetables and fruit, the muscular system is not commonly highly developed. Trades, that should cultivate muscle, are pursued here in a sitting posture, and with so little outlay of force that they do not contribute largely to the growth of the muscles. The result of this want of vigour is seen in the fact that, to achieve a given amount of labour many more men are required here than in our own lands. When labourers are called upon to lift a heavy beam, or roll a large block of stone, four times as many as we should deem necessary take hold, and make up by shouting for sturdy outlay of strength.

Exercises, as such, are rather distasteful, even to boys and men, and altogether so to girls and women. Children, of course, have sports, but they are not so active as those of colder lands. Baseball, cricket, tennis, boating, running, jumping, wrestling, boxing, and the numerous other active sports of young Englishmen have no existence and no counterpart here. The ideal of enjoyment is either a mad gallop on horseback or sitting by running water in the shade, playing cards, telling stories, or smoking and chatting. At weddings, however, the young men throw off their lethargy, and dance, sometimes with great expenditure of physical energy, and fence with sword and shield, and piroutte on their mettlesome

horses. The national game of *jerîd*, which consists of throwing a stick while at a full gallop, and catching it on the rebound, is athletic enough, but is little played.

IV.—Mental Characteristics of the People.

The intellects of Orientals are characterised by keenness of the perceptive faculties, good memory, and versatility. They are less remarkable for logical power, judgment, and originality.

The strength of the perceptive faculties makes it easy for children to learn what is laid down in a book and for young men in college to commit to memory the matter of a lecture, if the manuscript is given to them. The want of the logical faculty makes it impossible for the student to take notes from a lecture. He cannot select the salient points and pregnant words of a discourse and note them down. Hence teaching by lecture has not been found a good system for the people of this land.

As a corollary to the strength of the perceptive faculties, *curiosity* is a marked trait of Syrian character. If two persons are walking together and talking, some boy will be sure to walk as near to them as he can get to pick up scraps of their conversation. If one stops in the street to write a memorandum in his pocket note-book, a passing porter, with two hundred pounds on his back, poises his load on his hips and waits to see why. His curiosity excites that of a woman with a sixty pound water jar balanced on her head, and she stops. A little boy with a bunch of grapes in his hand must see what it all means, while indemnifying himself for loss of time by eating his grapes. A donkey driver lets his animals forge lazily on, while he peers over the shoulders of the boy with the grapes. The driver of an empty carriage arrests his course, and stands upon his box to see why a donkey boy looks over the shoulders of a grape-eating boy, a woman with a jar, and a porter with a heavy load, at a stranger with a note-book and pencil in his hand. In an incredibly short space of time a crowd has been collected. When the man quietly puts the pencil in the note-book and the note-book in his pocket, the porter resumes his weary plodding, the woman with the water jar swings away to her house, the boy who has just finished his grapes goes off with a whoop and a hoot, the donkey boy races after his loitering beasts and stirs them up with a few curses and blows of his cudgel, the driver cracks his whip and starts his team, the crowd dissolves, and the man with the note-book quietly goes his way.

This curiosity enters into the life of the people, and influences all that they undertake. Everybody's business is that of everybody elses. They do not hesitate to ask for information on whatever is going on, no matter how private its nature may be.

The good memory of Orientals makes the acquisition of languages easy, and it is quite common to see a person here who can speak and write well in several tongues. On the other hand, the deficiency of the logical

faculty makes it hard for them to excel in the Mathematics and the Natural Sciences.

The strength of their perceptive faculties, coupled with the weakness of the reasoning power, causes argument to move on analogical rather than logical lines. A point is better carried by an illustration than by a syllogism.

The versatility of their mind stands in the way of stability and cumulative attainment. Many individuals have attained general culture, few have become profound scholars. Superficiality is the characteristic of educated mind here.

It results from these peculiarities that originality of thought is rare. Men investigate nothing. They do not study Nature and her laws. They do not cultivate philosophy, except with a view to hair-splitting argument, of which they are fond. There is no literature in our sense of the term. The stories which stand in the place of a literature are obscene. Poetry, of which the people are passionately fond, is conventional and limited in its range. Love, war, personal adulation, and a mystical philosophy are its themes. There is no proper epic in the Arabic. There is no poetic literature of the home, of Nature, of national life and patriotism, of history, or of religious life. When the missionaries wished to prepare a hymn-book, they could not call out the poetic gifts of the people in hymnology. The hymns are almost all translations from the English. Yet the Arabs love poetry to a degree which seems to strangers almost absurd. Boys in college versify algebra and anatomy. Everybody with any pretence to education makes verses. In a speech the poetical passages are applauded, whether understood or not. Indeed, poetry is valued rather in proportion to the involution of the thought and the obsoleteness of the words. But it is none the less valued, and is a power of no little importance.

When, through successive generations of education, the more solid qualities of the mind shall have become hereditary, the sparkle and brilliancy of the Syrians will lend a charm to their culture, which, even now, half blinds one to their superficiality and overweening self-confidence.

Meantime, the quality of self-confidence carries them far toward the realisation of the advantages of solid acquirements. A boy who has studied English but six months will stand up before an audience that would put an English boy, speaking in his own tongue, quite out of countenance, and debate, extemporaneously in English, a question of history and philosophy. He seems quite insensible of his deficiency, and only awake to his knowledge. Even failure does not seem to confuse and embarrass him. Diffidence is a quality almost unknown. Consequently an Arab always appears at his best. Whatever he knows he can use at call, and use skilfully and well.

In matters of *taste* the Syrian is undeveloped, but none the less strongly pronounced. He likes *contrasts of colour*, but does not understand *harmony of tints*. The poor, dirty women of Palmyra go to the

fountains in costumes of red, white, blue, and yellow. The Mutawâli women come into Beirût with bundles of grass to sell, wrapped in their crimson or scarlet veil, and when they have sold them march off with as much pride in the colour of their dirty garments as any European belle in her magnificent costumes. The houses are painted with the most brilliant hues of green, blue, yellow, and red. In some places the artisans have learned something of the harmony of colours, but often green and blue stare at you, side by side, on the same wall. They are constantly associated in their textile fabrics of wool and silk.

The Syrians love *music*, but it is usually either a dull monotone, in a minor key, or a series of wild sounds, which seem more like the inarticulate notes of a midnight forest than the regulated expression of the harmony of the soul. Yet such as it is, although hardly amenable to the laws of western notation, it has a power over the minds of the people apparently greater than that exercised by the more artistic harmony of Europe and America. Muleteers sing to while away the weary hours while they tramp behind their animals. Sailors sing to the plash of the oar and the pulling of the ropes. Quite young children sing most vociferously, and their voices are quite fascinating to their own people. In entertainments in the Frank schools the native music is far more appreciated than the foreign. There is singing at weddings, chanting at funerals, and intoning everywhere in divine worship. Music is more or less obedient to law in the Oriental mind, albeit the intervals and harmonies differ very widely from western ideals. It has even been committed to paper, and, in a modified form, expressed by western notation. Of this more anon.

The Syrians are not remarkable for the development of the idea of *form*. Few draw, and fewer paint. The ecclesiastical pictures are rude daubs, of the most conventional type. There are no sculptors, except the few who have learned a little of the art of making figures of men and other natural forms to meet a foreign demand. There are very clever stone-cutters, who can design and execute vases, pillars, ecclesiastical ornaments, balustrades, and elaborate patterns for walls and pavements, in marble, limestone, sandstone, and slate. Many of the arabesque carvings and complicated wall figures and pavements in Damascus and Beirût are masterpieces of this sort of art. But it is a conventional art, not an imitation of the free, graceful outlines of nature. Even in this the Oriental has degenerated from his ancestors, who carved the beautiful doorways, niches, and arches which adorn so many Saracenic ruins.

Architecture is almost a lost art. The standard idea of a dwelling house is a cubical box, with partitions and apertures. The staircase, if there be a second storey, is usually outside the building. Most of the roofs are flat. The only graceful feature of a truly Oriental town is the slender minarets, and the arcades which are built in front of the cube, to afford an outdoors for enjoying "*keif*," the "dolce far niente" so dear to this people. In some cities, as Jerusalem, the want of wood has led to

the development of the dome, not as an ornament, but as a matter of necessity. The effect is one of solidity and architectural beauty.

The Syrian taste for *location* is pronounced and correct. Although villages are necessarily built where water is accessible, the people take the greatest pains to build their houses on the most airy sites, overlooking the most extensive view. One of the villages near Beirût, which has a matchless variety of views over the green plain, the dunes, and the blue Mediterranean, is named *Skuweifât* (*The Little Views*), and not a spur of rock, or a knoll commanding the ravines which intersect the town, and divide it into three distinct villages, has been neglected in the choice of building sites. The women are contented to toil up 200 feet of steep hillside, with a heavy jar of water on their shoulders, rather than have their houses in the ravine, at the level of the fountain. Doubtless the choice of these fine sites is determined in large part by the fresh breezes which sweep over the more prominent features of the surface; nevertheless the proprietor speaks in glowing terms of the grand sweep of the view. The convents of the country are almost all placed in the most picturesque locations, often at the expense of great inconvenience in the matter of water and other supplies. For a similar reason towns themselves are usually picturesque, especially in rolling and mountain regions.

The taste for *physical beauty and ornament* is intense. The descriptions of types and instances of female beauty in Arabic poetry are fervid and infinitely varied. Nothing escapes the vivid word painting of the silky tresses, "black as the raven's plume," the snowy brow, "pure as the Alpine drift," the arched lids, the long, dreamy lashes, the gazelle-like eyes, the chiselled nose, the ruby lips, the pearly teeth, the dimpled chin, the rosy cheek, the graceful neck, the queenly form, the god-like gait, the lily hand, the slender fingers, the enamelled nails, which are all described with a variety of expression which the literary ingenuity of the poets and the marvellous flexibility of the Arabic language, have alike rendered possible.

The horse, the camel, the lion, the perfect warrior are types of beauty and nobility, which furnish inexhaustible themes for the taste and descriptive power of the poets. Hundreds of names exist for each of these ideals, most of them expressive of phases of excellence and beauty.

The *love of ornament* is a passion amongst this people. The poorest of the women wear gay colours, even if the material is fringed into rags and tatters of blue, and green, and scarlet, and yellow. They wear bracelets, even if they cannot afford anything better than brass, or glass, or pottery. They stain their fingers and nails and feet with henna. They tattoo their arms, breasts, chins, cheeks, and foreheads with blue and scarlet, and the Bedawîn women, and some of the peasants, tattoo their lips with a lead-coloured stain. They wear ear-rings, nose-rings, brooches, tiaras of jewelry, velvet, silk, or lace, hair-pins with jewelled heads, necklaces, armlets, anklets, rings. The women, in many places, wear their dowry in

strings of gold and silver coins around their faces, or their heads, or hanging down their backs, braided with their hair. They love striking contrasts rather than harmonies in the colour of their dresses.

The taste for *odours and perfumes* is also almost a passion. Some of their standards are not agreeable to Occidentals. For example, *Habbaq* (Ocimum Basilicum) is one of their favourites. My patients constantly bring it to my clinics. It is rather too strong for most Europeans and Americans. Henna is also a great favourite. To many Western nostrils it is mawkish and offensive. On the other hand, the natives are equally fond of perfumes of undoubted excellence. They love to surround their dwellings with jessamine, violets, mignonettes, roses, tuberoses, and carnations. No more delicate compliment can be offered here than to present a bunch of sweet-smelling flowers. My clinical table is often fragrant with these floral tributes from those too poor to show in any other material form their gratitude for services rendered. In the houses of the poorest people you will often see a bright-flowered, sweet-smelling carnation or rose, in a fragment of a water-jar or an old petroleum tin.

The *feelings* of Syrians are characterised by intensity rather than constancy. They pass quickly from grave to gay. They are sensitive to the point of touchiness, especially in that which relates to their country, their sect, their family, or their religion. A man who will take reproof or repoach directed at his own personality will at once resent a slighting allusion to his family, and will become furious at an innuendo against his religion and his sect. To curse a man is so common that no one thinks much of it. But to curse a man's religion is an actionable offence. Foreigners who indulge in such bad taste as to speak disparingly to Syrians of their people in general take the surest way of making themselves hated. The people constantly speak thus of each other, and of their people collectively, but it is the best policy for a foreigner who hears such a remark to receive it with discreet silence.

The intensity of the feelings of Arabs is shown by the vast number of phrases capable of a double meaning which are idiomatic in their language. To defend themselves against the supposition of intending a double meaning, it is customary for the Arabs to say *bela ma' na* (*without meaning*) whenever they use a word susceptible of such interpretation, or they will say *ajellak Allah* (*may God exalt your nature*), that is, above any such low and injurious construction of what I have said.

The *will* of the Arabs is rather irresolute. They do not lack *wilfulness*, but a steady, resolute, self-determined, self-reliant will is a rare quality. This undoubtedly arises from the breaking of their wills by ages of misrule and oppression. Meantime, the loss of a self-poised will explains in part the depression of all industries and the stagnation of enterprise, which none see more clearly than the people themselves.

V.—Moral Characteristics of the People.

It is a difficult and delicate task for a foreigner to judge impartially of any of the characteristics of the people among whom he travels or lives. But in nothing is this difficulty so great as in point of *morals and religion*. The standards of different countries and peoples differ so widely in this regard that the largest charity must be exercised, and the most favourable construction given to all doubtful instances. In what may be said on this topic the writer will endeavour to give a calm, dispassionate, and just presentation of facts, accumulated during a long experience, and make only fair inferences and generalizations, and avoid, as far as possible, comparisons with other peoples.

Truthfulness.—There is an Arabic proverb, "*Lying is the excellence of men; the disgrace is to him who tells the truth.*" This saying, however, like all proverbial expressions, is only a sententious generalization, and can by no means be applied to all persons and all transactions. Many Syrians tell the truth at times, many generally tell the truth, a few nearly always. But it is so generally admitted that no native will tell the truth at once and simply, when it is disagreeable to the listener, that everyone expects a man to suppress a part at least of such truth, to cover it up by a partial lie, or to tell an out-and-out lie, which will prevent the person from suspecting the truth. Thus, if a father has died, the one who possesses the information may say to his son that his father is indisposed, or that he has been ill but is now well, or that he sends his regards and hopes soon to return. In either case, such is apt to be the son's conviction that the friend is not telling the truth that he usually breaks out at once into frantic grief, and adjures the informant to tell him the facts. If the informant thinks that the shock will be too great, he may now flatly deny the death. Otherwise, he may make a succession of admissions, each nearer to the catastrophe, and each an actual or virtual lie, until the truth bursts in its overwhelming force on the mind of the son.

I am daily asked by friends of my patients to tell the sick man that there is nothing serious, that he will soon be well, that he does not need any operation, and the like. As I cannot tell these falsehoods, the friends take it upon themselves to tell them for me, and appeal to me in the presence of the sick man to confirm them. It requires the utmost tact in many cases to avoid offending the sensibilities of the friends on one side, and frightening the patient to death on the other.

This class of falsehoods is looked upon by natives as right and necessary, and is dictated by a kindly though perverted feeling. Thus the writer was called to a distant part of the country to see a man in a desperate case of illness. When near the village, his conductor begged him to say to the sick man that he was by accident in a neighbouring town, and hearing of his illness called to see how he fared. On representing to my conductor how useless and shallow such a falsehood would be in deceiving the sick man, he suggested that I should tell him

that I was very much provoked at being called so far to see one who had no need of my services. I then asked him whether, having had confidence enough in me to call me, he had not enough to trust that I would use tact in my intercourse with the patient. He replied, "Of course he had, but——" and suggested other modes of meeting the case.

This class of falsehoods, while most foolish and ineffective, is the least sinful of the many phases of untruthfulness; but it is *well-nigh universal in the East.*

The people are, as a class, unreliable about keeping promises and agreements. Thus a carpenter engages to begin work for you on a certain day. When the day arrives it is quite likely that he will not come. To oblige you he will promise, when he knows that another job, previously undertaken, will prevent him from meeting his appointment with you. He does not reflect that you will be more provoked at his failure to come when he promises than his refusal to promise when he knew he could not come. Everyone who has any experience in building here knows how many weary days and weeks are wasted by the untruthfulness of the artisans on whom he relies. Boatmen and muleteers are especially untruthful, and often delay a journey by their failure to keep their word. In consequence of the universal distrust of promises of this sort, it is customary to exact of boatmen, livery stablemen, muleteers, and others with whom one makes an agreement, a pledge, which will be forfeited if the agreement is broken.

In general, Syrians put little faith in each other. The speaker is so conscious of the fact that the hearer does not believe him that he constantly fortifies his assertions with oaths:—"by my conscience," "by my virtue," "by my religion," "by the life of God," "by your life," "by the life of your son," "by the mercy shown to your father." These are some of the "oaths for confirmation" which are daily heard, but which do not end strife, because their value is well known. As the persons arguing a point both use the same oaths on opposite sides, it may be supposed that one set of asseverations neutralises the other. Perjury before the Courts is of daily occurrence. The Life Assurance Companies of Europe decline to take policies on Oriental lives, owing to the difficulty of obtaining reliable testimony on the points insisted on in the preliminary enquiry and the certificate of death.

So general is the habit of lying that it calls for an explanation. To the writer it has seemed to arise primarily from a sense of weakness and oppression, which has put the people on their guard against committing themselves. This explanation covers the innumerable number of falsehoods which seem to be uttered without any adequate motive, and which certainly do the person who utters them no good. A person who has told the truth has nothing more to say; he has no other card to play. One who has told a lie still has the truth to fall back on, and may claim some merit in coming out with a frank avowal. In point of fact, we every day meet with instances in which a person has fenced and parried with untruths, and then at some opportune moment says, "Well! I will

tell you the truth," so-and-so. The conversations of Samson and Delilah on the source of his strength illustrate this habit.

Once the habit of lying is established, it is easy to see how it should become the rule of conversation, in all cases where one wishes to be guarded. Instead of discreet silence, or skilful evasion of a compromising question, the more effective method of a deliberate falsehood is calmly resorted to, and justified on the plea of necessity. "What can we do?" is every day in every mouth.

It must not be supposed, however, that any one here maintains falsehood in thesi. The complimentary prevarications, the reservations, verbal and mental, in which they indulge to spare the feelings of others, the positive untruths which they tell with the same motive, are excused and condoned as necessary. But a reputation for truthfulness is as valuable in this land as in any other, perhaps more so.

Honesty.—This quality is *truthfulness in act.* It goes with truthfulness in word. An exact equivalent for the word honesty does not exist in the Arabic. The nearest to it is *amaneh*, which rather means trustworthiness.

It is customary for the steward of any institution or individual to take from the dealers a percentage on his purchases. This is justified by the idea that the dealer gives it out of his profits. Stewards often serve for very low salaries, expecting to indemnify themselves out of the perquisites of their position.

Government officers receive low salaries, and it is taken as a matter of course that they will supplement them by stealing and extortion. Although household servants seldom betray their employers to thieves, they do not regard petty pilfering of stores as very bad, especially if they have families to support. Household stores are kept under lock and key, and the perfect woman "giveth a portion to her maidens."

The closeness of the family bond causes relatives to lend each other far more money, with or without any written acknowledgment, than is usual in Europe or America. Such loans are very often unpaid, and many bitter family disputes arise from this source.

The vineyards, fig orchards, and melon patches are watched by an armed man, and no one would expect to get any fruit unless his property were so guarded.

Joint-stock companies are almost unknown in the country except as controlled by foreigners. There are two exceptions, that of the Tripoli Tramway, and that of the Tripoli, Hems, and Hamath carriage road. Their success thus far affords a hopeful augury of the growth of capacity and trustworthiness in the community.

Business firms are most frequently family combinations. There are, however, many upright and high-toned merchants and bankers, and their number is increasing every year. The number of business failures in Beirût is rarely over five per cent. of the total number of firms engaged in business; they are less common among Mohammedans than among Christians.

In official circles *bribery* is well nigh universal. The course of justice is so perverted by this habit that no one goes into court with any idea that the issue depends on the equity or legality of his case. Judges receive such inadequate salaries that they cannot maintain their families without bribes.

Trustworthiness may be considered as a branch of honesty. The work of labourers and mechanics requires much supervision. If it is day labour, the overseer must keep his eye quite constantly on the workmen, or the work flags. If it be contract work he must watch with greatest care lest inferior materials be furnished, and the work be done in a careless and slovenly manner.

If a contractor find that he cannot make good his contract, as to quality of material and workmanship, he is sure to default, and the Courts will sustain him, on the ground that he is not able to meet his agreement without loss. Much embarrassment arises from this cause, and great difficulty is experienced in getting either materials or work up to the standard, even where the terms are favourable to the contractor. Foreigners usually prefer day work, which, however, costs from 20 to 50 per cent. more according to the exactness of the job.

A person stationed at a given point, and told to watch until you return, or sent to a given point to await you, will probably soon leave his post, and come back to find why you did not come. Cassabiancas are not common here.

Many apparent instances of untrustworthiness are due to a want of care on the part of the *employé* in ascertaining exactly what is wanted. Other instances occur from a rooted habit of interpreting the directions, or improving upon them, according to a subjective standard of his own. It is quite common for an employed person to tell you that he thought it would be better to do so and so. One employer replied, "I do not hire you to *think*, but to do what I say."

Chastity.—The Arabic language is full of obscenity. Most of the commonest words have also secondary, obscene meanings. The speaker defends himself by a *bela ma'na*, or *ajellak-Allah*, from the imputation of intending such a meaning. But the defence is a condemnation. It shows that at least such a thought is connected with the word used. In moments of anger these meanings are asserted openly, and language becomes ribald and crass. The obscenity, even of very small children, is very shocking to those trained in another school.

The literature of the Arabic language is full of the grossest thoughts and descriptions. The original "Arabian Nights" is a book which no modest person would care to read.

Masturbation and sodomy are extremely common among boys, and constitute serious difficulties in conducting a boarding school. Night watchmen have to patrol the dormitories and halls to keep these vices in check.

The penalty attached to fornication of girls is so severe that the offence is comparatively rare. Among the Mohammedan and Druze

sects a father or brother will kill an unchaste daughter or sister. Among Christians the death penalty is unusual, and seduction is more common. In all sects girls are married very early, often at 12, sometimes at 9 or 10. This is undoubtedly a protection against unchastity in unmarried females. It is also true that attempts at seduction of girls are frowned down by Orientals as inexcusable and cruel.

Chastity in married women differs in different localities. The fact that nearly all the houses are in villages or towns, and that there is no privacy in any house except in the large cities, tends to check adultery. In point of fact it is relatively uncommon. In the jealously-guarded Mohammedan harems, it is almost impossible. Among the poor, where the whole family lives in a single room, it is difficult. Among the peasant population the sentiment is strongly against it.

Harlotry is a trade in the cities, yet it is far less open and shameless than in the great capitals of Europe and America.

Undoubtedly, in the present state of education, the reserve enforced in the intercourse between the young of the two sexes tends to preserve chastity. Among the Mohammedans in the cities, it amounts to almost complete non-intercourse. To a Mohammedan young man of Damascus for example, all the female sex, except his near relatives, is a sheeted mystery. But in villages and in the desert the young men and women have more or less freedom of intercourse, which is rarely abused. Nowhere, and among no sect however, do the sexes mingle in social gatherings, or in places of worship, saving where European manners have done away with those of the natives.

Profanity is very common. It must be remembered, however, that a familiar use of the divine name and attributes, which grates upon western ears, is idiomatic in Oriental speech, and conveys no more impression than *good bye* in English, or *adieu* in French. Every salutation contains or implies the name of God. *Allah*, used with the rising accent, means "*what?*" *Yallah*, said to a troublesome child, means "*go away*"; or to a person whom one wishes to do something, means "*begin*"; or to a donkey, means "*get up.*" If a person say, "I rang the bell *yallah, yallah, yallah,*" he means I rang it *over*, and *over*, and *over*. If one yawns, he will probably end off with an ennuyed *yallah*. If a man stumble the bystanders will ejaculate *Allah*. It is the survival of a short prayer that no harm may come of the accident. Where a man would say *eh* as a sort of catch in conversation while thinking of a word, a man here would say *Allah-kheir, God is good.* It cannot be denied that this familiarity in the use of the name of God tends to lower the value of that great name, and to diminish its significance as used in devotion. It is a true taking of it in vain.

Cursing is extremely common, and often as ridiculous as it is wicked. A man will curse the father and grandfather of another, his harem, his religion, his donkey, his donkey's father, the devil. The writer heard a person the other day curse the religion of the devil. A woman was undergoing an operation for the repair of her ear, which had been slit by

a heavy ear-ring. Maddened by the pain of the operation she repeatedly cursed the religion of the ear-ring that caused her misery. Children who can hardly talk curse each other and their parents. Parents curse their children and the parents of their children.

Family affection.—It is delightful to turn from some of the weak points of Oriental character to those in which they show forth goodness of heart and lovely virtues. Family affection is one of the most characteristic of all the qualities of this land. The patriarchal idea has never been lost. In western lands we are strangers to our second and third cousins. In the east, even poor relations of the most distant degrees, are acknowledged. Some families, as the Shehâbs, Blemmas, Khâzins, and others, trace back their family history for generations and centuries, some of them for one or two millenniums.

Love of children is one of the most winning traits of the Arabs. The devotion of mothers to nursing their own children, caring for them in sickness, and mourning for them when taken away, is most touching. A mother will sit for hours at a time in a most irksome position in the bed to allow her child or husband to lean against her bosom, while she soothes his pains and lulls him to sleep by her endearing tones and loving ministrations. For days she will hardly taste food, and refuses to take a moment's sleep while watching a case of sickness. She will strip the coins off her head-dress, sell her jewels, or even her clothing and bedding to provide food and medicine for her sick child. I know of many parents who serve in menial capacities and deny themselves every luxury, to educate a son and make a gentleman of him. The phrensy of parents when they lose a child is sometimes almost fatal to themselves.

Love to parents is also a beautiful trait in the Orientals. There are few Gonerils and Regans and many Cordelias in the Levant. A father, not more than fifty years old, recently remarked to me that it had long been his day dream that he should arrive at the age when he could sit in his own house, while his son took the management of his affairs. Everywhere the aged grandfather and grandmother may be seen, honoured and beloved, in the houses of their offspring of two generations. The opinion of the elders is looked for with filial respect by their descendants, and their decision in matters of general family interest is usually final.

The liberality of members of a family to each other is very striking and beautiful. Children earning wages often put all, not required for their clothing, into their parents' hands. Parents continue to help their children long after maturity. Brothers and sisters help one another, sometimes by loan, very often by gift. It is a great disgrace to a family for even distant members to die by starvation. Hence such deaths are very rare. A man in straits in Syria can usually realise the means of relieving his difficulties far more readily than one in similar circumstances in the west. He goes to some cousin, perhaps of the fifth or tenth degree, and obtains the needed accommodation, sometimes as a loan at high interest, but often as a gift or a loan with little or no interest.

Hospitality.—This virtue is also one of the most characteristic

of the qualities of the people of this land, and sheds a most attractive light over their social life. Its most typical form and extreme application is seen in the case of the Bedawîn. A stranger coming to a Bedawîn encampment at once becomes their guest. Even if he be an enemy, he it entitled, by the law of hospitality, to shelter, food, and protection, and may stay as long as he pleases, quite unmolested. When he has left, and is fairly outside the limits of the camp, his late hosts may plunder and kill him.

In Qaryetein, a watchman of the vineyards once shot a Bedawîn who was trespassing. Dreading the inexorable law of revenge, he resolved to flee to a Bedawîn tent, and throw himself on the protection of his host. It chanced that he fled to the tent of the mother of his victim, who at once gave him the usual welcome and entertainment. Presently the avengers of blood traced him to the tent, and were about to enter and put him to death. The mother of the slain man, however, seized a club, and brandished it in the faces of the assailants. They told her that they had come in her behalf to kill the murderer of her son. She said she knew who he was, but that no one should dishonour the hospitality of her tent by injuring even such a guest. She continued to protect him until the town authorities redeemed him by paying the blood-money, which, when received, constitutes a complete quit claim.

If anyone, however poor, is eating, and a friend comes by, he at once says "*tafaḍḍal*," *i.e.*, "*prefer yourself*," meaning by that phrase to invite him to partake. As soon as a stranger arrives in a village, he may ask for the *menzoul*, which is a room, often the best in the place, reserved for the entertainment of strangers. This is often in the sheikh's house. The guest is asked what he wishes, or he is entitled to ask to be furnished with eggs, milk, fruit, bread, and other articles which he needs. Theoretically, he is not obliged to pay anything for these, being considered the guest of the village. Practically, all right-thinking guests do pay a reasonable compensation in some way, either by items, or by a lump sum given as a present.

It is very common for anyone who wishes a favour of another to say *ana dakhîlak*, that is, "*I am your guest*," or "*dakhl Allah wa dakhlak*," that is, "I am God's guest *and yours*."

Two incidents, occurring on the same day, during a recent journey of the writer in the Nusairy Mountains, will illustrate the method and sweetness of Syrian hospitality better than a generalisation.

The first took place at El-Bîreh, a Nusairy village in the lonely highlands, where for four months the people are more or less shut in by the snow-drifts. An attendant had failed to keep up with us, and we found ourselves at mid-day without our lunch. The sheikh had invited us to the booth occupied by the Government inspectors of the harvest, and presently it was filled with men who came in from the threshing floors to welcome us. As soon as we let it be known that we needed food, the sheikh sent for what they had. A large tinned copper pan was brought, filled with a stew of squash and cracked wheat in Lebben. We were so

hungry that we ate deeply into this coarse dish, and suffered from indigestion for several days after. Just as we were leaving the sheikh gave us a loaf of bread a-piece. He would not take any compensation, and apologized most earnestly for the poor entertainment.

That very afternoon we arrived at the Christian village of el-Meshta, the seat of a wealthy family named el-*Helu*. We rode through the gardens, and at the turn of a steep pathway came suddenly on an open space, over-shadowed by a noble plane-tree, with a cool jet of water plashing into a basin, around which were arranged divans. On these divans the elder members of the family were sitting or reclining, smoking their narghîlehs, and chatting together—a most attractive picture of a patriarchal household. The younger men were lounging about in the shade. The boys were taking a plunge among the ducks in the tank which received the overflow of the basin, and enlivening the quiet conversation of their seniors by their shouts and laughter. A few black eyed, shy girls were peering out of doors and windows, and wondering no doubt, who the three horsemen with Frank clothes and pith hats might be.

The moment we were seen the chief of the family stepped forward to bid us welcome, a dozen youths seized our bridles and stirrups to help us dismount, busy hands spread cushions for us in the breeziest part of the shady plaza, and we were made "at home." Our horses were tied up by friendly hands, our saddle-bags taken into the house, and presently sherbet and coffee were served, and narghîlehs offered. After we had chatted for some time, the host offered to give me the use of a room for a bath which I desired, and even proposed that his son should serve me as bath-tender, an offer which was modestly declined. When dinner-time came, an ample repast was served under the plane-tree, to the cooling sound of the fountain. The best room in the house was given to us for our beds, and we were made thoroughly welcome for the period of our stay, which, unfortunately for us, was only one day. They entreated us to stay at least a week.

One feature of the entertainment was that the host and his family themselves did a large part of the serving, not because they lacked attendants, for the great house was full of them, but as an assurance of their pleasure at our visit, and their devotion to our welfare. This feature of Oriental hospitality is so marked that the Marthas who serve are more than the Marys who give their attendance on the conversation of the guest.

As a corollary of the hospitality shown to the guest, he becomes immediately acquainted with the family, and on easy terms with them. There is no stiffness and reserve to be overcome.

Nor must it be supposed that this hospitality is shown only to guests who may be supposed to confer honour by their presence, or from whom a return in kind may be hoped. While we were at el-Meshta, a man from another village brought his little boy to be operated on for a stone. Our host at once offered, if I would do the operation, to let him have a room and entertainment in his house for the period which I

might deem necessary. It would have been at least two weeks. Had I consented to operate there the father would have consented as a matter of course.

Convents entertain any guests who may come without charge. Guests usually leave an acknowledgment of the courtesy. To every Bishop's establishment there is attached an "*Untush*," or place of entertainment, where even the poorest of his visitors may be accommodated. Many officials have such places of entertainment.

Doubtless the simplicity of the mode of life of most Orientals favours hospitality, as it is far easier to show it than in the more artificial life of the West. But it deserves a place among the virtues of the people because it springs from genuine goodness of heart, and a sense of duty to the stranger as well as the friend.

Neighbourliness.—Akin to hospitality is neighbourliness. The Arab proverb has it, "*the neighbour before the house*," that is, determine whether you are going to like your neighbour before you take a house. They have high ideas of the duties of neighbours. Our cold manner of not knowing one's next door neighbour is wholly contrary to Oriental ideas. It is with them at once a duty and a pleasure to know them. In sickness one visits and ministers to a neighbour almost as to a relative. It is expected that a doctor should favour neighbours with lower fees or take none. A tradesman is expected to deal better with neighbours than with others. Your next neighbour has a right to purchase of property prior to that of your own brother, a right sustained in law. A person appealing for aid and sympathy will say, "*I am your neighbour.*" The Scripture is full of allusions to neighbours and neighbourliness. It is no strain on friendship to borrow food and bedding from a neighbour in case of emergency. To lend them is only a modified form of hospitality. A woman, who has a young child, is always ready to show her friendly feelings by nursing the child of a neighbour who may be in need of such an accommodation. In fact, it is quite common to exchange courtesies in this line during a visit. It is a sort of *blood-sisterhood.*

Charity.—Systematic beneficence is not common, but it is everywhere esteemed a virtue to feed the poor. It is even meritorious to feed street dogs. So general is it to give food to beggars that a large mendicant class is supported in this way. The religious beggars, *faqîrs*, have no other means of living, and travel where they will are sure of a sufficiency. It is not at all necessary to be lame, or blind, or deformed, in order to secure alms. There is a Moslem, living in a good house, with a family, and who goes about in a fur-lined cloak, and does nothing for a living but beg. He is supported from year to year in this way. Some Emîrs go about on blood mares, with an attendant, and beg their living, as well as that of their horse and groom. As a rule the alms given is small in amount, but the applicants are numerous, and many make a principle of never turning any away without help.

There are benevolent societies in most of the cities of Syria, and considerable amounts are raised and distributed among the poor.

Temper.—Syrians are ordinarily good-tempered. Like all mercurial races they are generally gay and cheerful, and seldom morose and crabbed. They are, however, liable to sudden and violent outbursts of temper, which transform usually mild and amiable persons into furies. During such paroxysms of ungovernable rage the whole frame is wrought up into a hysterical state, the eyes start out of their sockets and become bloodshot, the face becomes livid and purple, the veins of the neck are engorged, the hands and arms are projected forward, and the feet stamp in a transport of passion, while the tongue pours out a volume of vituperation with a voice which can be heard hundreds of feet away. Many persons lose their voices temporarily, some permanently, from these thundergusts. Many are made ill by them, and some lose their lives as a consequence of the strain on heart and lungs and brain. The least consequence of such an indulgence of hot temper is usually headache and lassitude, which often last for many days. So common are such outbreaks that one cannot pass any great distance along the streets of a city without witnessing one. They are especially common around the fountains, owing to questions of priority and privilege in the matter of drawing water.

This vehement anger, which is usually unrestrained from childhood, leads to most serious brawls, and often ends in fatal assaults with club, or knife, or firearms. It is amazing to find on what a small foundation some of these desperate affrays rest. A controversy about a few paras, the question as to which of two women shall put her jar first under the waterspout, an allusion to the family or religion of another, a pleasantry susceptible of a double entendre, are sufficient to set a village aflame, and to create a blood feud between two families. In such quarrels the partisan spirit overrules every other consideration. If a brawl is going on in a village or a quarter of a town, residents, attracted by the noise, rush to the scene and array themselves on the side of their clan or religion, usually without reference to the merits of the controversy.

Revenge.—It is generally considered that a hasty temper is soon sated with rage and ready to forgive. Unfortunately the idea of revenge is a national trait of the Arabs. The law of revenge is best exemplified in the Bedawîn character and usages, where it underlies the whole mode of existence. It will, therefore, be treated of at length in the essay on the Bedawîn. But the influence of their principles and practices is felt among all the people of Syria and Palestine. Injuries are cherished and nursed, and the time for revenge awaited with a patience and persistence seemingly at variance with the national character. Many a stab in the back delivered, in a dark lane at night, into the chest of a person unknown to the assailant, revenges an injury committed by a member of the family of the injured man on the assailant or one of his family. This second assault can only be atoned for by the blood of the assailant or of one of his family or religion. The Druzes practise the *lex talionis* more than any other of the Orientals except the Bedawîn But the Christians far too often vie with them, and in consequence a long series

of bloody civil wars, ending in the terrible massacres of 1860, devastated Lebanon and rendered it one of the most unstable provinces in Turkey. Happily, under the wise system of government inaugurated by the great powers of Europe, these feuds have died out, and peace and prosperity bless that beautiful range. Private revenge, however, still keeps alive hatreds and personal feuds of a most serious character.

Peace-making. It might be thought that with their explosive tempers, and the principle of revenge recognised and approved, the people could never arrive at the equilibrium of goodwill and kindly feeling after a quarrel. But here comes in a good trait. The Orientals are great peace-makers. In a street brawl some one or several people rush in, tear the combatants apart, and often at serious risk to their own safety hold them off from each other while they and others remonstrate, and use their neutrality to bring about a reconciliation. They do not esteem any amount of time or effort too great to effect this end. So when a family quarrel occurs, disinterested parties busy themselves in bringing about a rapprochement, and obliterating the traces of the controversy. And this is done, not with the reluctance springing from a half-unwilling sense of duty, but with the unmistakable enthusiasm and zeal of those who desire peace. Men will give up their business, and sacrifice much time, and exhaust the ingenuity of friendship to allay passions, soothe wounded hearts, and heal the breach. The same kindly impulse which leads the the peacemaker to give himself to the task of reconciliation, leads both parties to recognise in him a sort of authority, which entitles him to impose conditions on both. Wonderful is the ingenuity with which he persuades both that they have gained everything and lost nothing by the adjustment. Untiring is the patience with which he smooths down the ruffled feelings, quenches each spark of passion as it flickers up again into a tiny flame, and finally brings the late combatants together in a brotherly embrace and kiss. Among the ingenious methods by which susceptibilities are allayed is the custom, instead of asking forgiveness of one another, for the two combatants to ask forgiveness of God, a method sound in religion as well as philosophy. It is not surprising that the Arabs should be peacemakers, as they all feel the necessity for the office. In an hour the peacemaker may become a party to a quarrel, in which he will need and obtain the pacificatory services of the parties whom he so lately reconciled.

Temperance. The Mohammedans are on principle total abstainers. Many Christians follow them in this matter. Although living in a wine-producing country the people are, as a class, non-users of wine and other alcoholic beverages, and of those who do use them few are drunkards, and most only drink at comparatively rare intervals. Except where European influences prevail it is rare to see wine on the table.

Cruelty and Mercy. These opposite traits are also characteristics of the Arabs. Their cruelty arises rather from thoughtlessness than from ferocity. Children are not taught that it is cruel to tie a string to a bird's leg and let it fly for a short distance, and then jerk it back, and

repeat this until the poor creature dies of exhaustion and grief. They are not taught that it is cruel to catch birds with limed twigs, and then to tie their wings together over their backs, and string them on a stick, and carry them in this agonising attitude for hours before they are killed. No parent ever remonstrates with a child for pulling the wings and legs off insects. It is no wonder then that men come to load animals, the backs of which are all raw, and continue to drive spavined and foundered animals until they drop under their loads. It is not wonderful that they beat their beasts most barbarously. All these cruel habits are found in every land where children are not early trained to be kind to dumb beasts, and where public sentiment and law have not come in to restrain barbarity.

Cruelty to animals is for the most part confined to those which are hunted, or loaded, or driven. On the other hand, herdsmen are usually merciful to their flocks and herds. They do not overdrive their charge. They are diligent in watering them, and finding suitable pasture for them. They direct them by words and ejaculations, but seldom beat them or stone them. Few sights are more interesting than the care which a shepherd takes to coax his sheep and goats to drink their fill at the water-troughs, by banging on a copper kettle, calling to his wards in sheep and goat phrases, and mixing a little tar with their water to give it an agreeable smack. Even the muleteers, although they will load their galled animals, yet when they come into camp take much pains in dressing the sore spots, and adjusting pads to relieve pressure. And, no matter how tired the muleteer may be, he will not neglect to curry and rub down his more tired beasts. The click of the currycomb often awakens the camp an hour or more before dawn.

Worn-out animals are turned out to graze. It is not considered merciful to put an end to them. The writer has seen a horse, with his hoof torn off, left to eke out his existence on the public common. It is a perverted sense of kindness which spares him. It is considered a merit to feed street-dogs and stray cats.

Children are in more danger from over-indulgence than from cruel treatment. Only in the silk mills is there anything like the systematic over-work of children so common in the manufacturing countries of Europe. Employers are seldom cruel to their workmen, and public sentiment is always against them if they are.

There is a kindly regard for the blind, the maimed, lepers and insane. Blind men feel their way about with perfect confidence by means of their staff. They are never allowed to die of starvation. The maimed are sure of a living, and often of that of a sound companion who does the soliciting, and waits upon the injured person for a share in the proceeds. The insane go about the streets unmolested, and are seldom violent. Kindly offices to the sick and unfortunate are general.

Envy is not a conspicuous trait of the people. On the contrary, they are, as a rule, contented. Believing, as a large part of them do, in the absolute decrees of God, and the inevitable appointment of their lot,

they are inclined to accept it even too willingly, and to regard it as fixed. Children usually adopt the guild or employment of their parents. The restless, feverish desire to better their condition, so characteristic of the overcrowded states of Europe, has only begun to ferment in the body politic of Syria. Its principal manifestation thus far is in the vast numbers who have emigrated to North and South America and Australia, to seek their fortunes.

Jealousy is necessarily a part of the Mohammedan system. It is in striking contrast with the confidence shown by Christian communities in the same localities. There is no doubt that under the system of polygamy nothing else than this supreme jealousy would prevent universal scandal and vice.

It will be seen from this review of the moral characteristics of the people that many of their traits are such as belong to an undeveloped child-like stage, and that the good qualities may be further cultivated, while many of the bad may be expected to disappear with advancing culture and civilization.

VI.—Religious Characteristics of the People

In a country where there are so many religions as in Syria and Palestine, and so sharply defined, it might seem difficult to find any features in common which would characterise the whole. Yet there are such features.

(1) *Religion is universal.*— The whole population is enrolled by the Government according to religious divisions. The first question asked of a man in court is "What is your religion?" To say that a man has no religion is equivalent in public opinion and law to cursing his religion, and declaring it to be of no account, as it is held to be impossible for anyone to be without religion.

(2) *Religion enters into all the Relationships of Life.*—A considerable part of men's names is compounded of the names and attributes of God. The same forms of salutation, containing the same prayers and ejaculations, are used by all. A few are special to particular sects, but the name of God enters into all. Religion controls labour. Each sect has numerous religious holidays, during which its votaries abstain from business. The aggregate of these holidays is large, numbering at least a hundred days in the year. The hindrance to business is enormous. Some of the shops are closed one day for a Maronite feast. Another day others are closed for a Greek holy-day. Then follow Jewish and Mohammedan *non dies*. Sometimes all the Christian shops are closed the same day, when the calendars happen to correspond. In large building operations, where men of several sects are employed, much embarrassment is experienced from this cause.

Religion regulates the social relationships and affinities. Marriages between Mohammedans and Christians are of course out of the question.

Druzes and Christians do not inter-marry. Mutawâlis and Sunnite Mohammedans also do not cross their own lines. Jews have no right to inter-marry with any other sect. Even Christians of the different sects seldom inter-marry. Furthermore there is comparatively little visiting or social intercourse between Christians and Mohammedans and Jews. Druzes mingle more with the other sects, as there is a special provision in their articles of faith for allowing even pretended advocacy of Islam and Christianity.

Sectarian schools are the rule, non-sectarian schools have not proved a success.

(3) *All the Religions are Ritualistic and Formal.*—They lay great stress on the externals of conformity, on feasts and fasts, on pilgrimage and vows, on stated seasons of prayer, and on the efficacy of priestly mediation. While there is a vast difference between the ritual of the semi-idolatrous Christians sects and that of the iconoclastic Mohammedans, they touch in the matter of reverence for tombs and sacred sites, and their belief in supernatural agencies at work in human affairs. They all believe in charms, relics, and texts worn about the person, or suspended or nailed about the house. A Mohammedan will string about his neck a bit of alum, a shark's tooth, a tin case containing a verse of the Koran or an incantation, and a bored pebble. A Christian wears a little picture done up in a small tin box, a bit of the wood of the Cross, a small relic of some saint. A Jew has his special necklace of charms. And all these are for one common purpose, viz., to ward off the evil eye. So alike is their regard for sacred sites that many Christian shrines, as the Convent of St. Catherine, at Sinai, and that of St. George, at el-Ḥusn, are in the odour of sanctity to Mohammedan nostrils, while many Mohammedan and Druze shrines are frequented by Christians. Jerusalem and Hebron are alike sacred to Mohammedans, Jews and Christians. If any convent or tomb of any sect gains a reputation for miracle-working among the votaries of that sect, it will soon attract those of other sects and become an object of reverence to all.

(4) *All the Religious Sects Agree in Attaching a Secondary Value to the Pious Life.*—They swear substantially alike. There is little difference in their lying or cheating. If a man is true to the externals of his religion he is not debarred from its privileges on account of immoralities. Some restraint is exercised by the confessional on the Christians, but it is notorious that bandits and libertines, who are liberal to the Church, have not much difficulty in securing its sacraments. A Mohammedan who was hung for murder in the first degree in Beirût some years ago, and that the murder of a Mohammedan Officer of the Government, was cut down and taken by an immense procession of the people of his sect, headed by its chief dignitaries, to the principal mosque, washed and buried with great pomp, and all the religious privileges accorded to the most pious. Though a murderer, he was none the less a believer.

(5) *Holiness is not a Prominent Object of any Religion of the East.*—Not that there are no pious persons in any of the indigenous sects, but that

the attainment of holiness is not set before them by their teachers, and seldom sought as an end. The Pharisaic spirit is the prevalent one.

(6) *The Sense of Sin is Almost Dead in All.*—Men seldom or never admit to one another that they have done wrong. They never seem distressed because they have sinned, and defiled their own souls. While they are as awake as others to the consequences of sin, and as anxious to escape them, they do not bewail the sin itself, and abhor its stain in the soul.

(7) *They are all Nearly Alike in a Narrow Bigotry and Intolerance.* – The sectarian spirit has destroyed patriotism, and divided the body politic into a number of irreconcilable schisms, which stand more in the way of the progress and amelioration of the people than any other cause.

BAROMETRICAL DETERMINATION OF HEIGHTS IN LEBANON AND ANTI-LEBANON.

By Professor Robert H. West, M.A.

The following observations at upper stations were taken by myself with a mercurial barometer, Casella, 738. The sea level observations are from the records of the Observatory of the Syrian Protestant College, Beirût (111 feet above sea level). These readings are from barometer, Browning, 244. All readings at upper stations are corrected according to certificates from Kew.

The reductions have been made according to the tables prepared by Arnold Guyot (Smithsonian Meteorological and Physical Tables, 1884, pp. 371-386). In cases were there was no reading at Beirût simultaneous with the observation at the upper station, the necessary readings have been obtained by interpolation from the tri-daily observations ; as the variations of the barometer at Beirût are very slight and regular during the summer months, these interpolations are sufficiently accurate.

In the appended notes, I have referred especially to the determinations of the late Sir Richard Burton and Mr. Tyrwhitt Drake in their "Unexplored Syria" (London, Tinsley Brothers, 1872), and the map issued by the French Government in 1862, "Carte du Liban." These are the only original sources to which I have had access, and most of the heights given in the other maps and books which I have consulted, appear to be drawn from one or the other or both of these sources.

	Date.	Beirût.			Upper Station.			Altitude in feet.	
		Barom.	Att. Therm.	Ext. Therm.	Barom.	Att. Therm.	Ext. Therm.		
1. Khan Muzhir, near highest point of Damascus Diligence Road.	August 23rd, 1887	29·770	86	89	25·110	72·3	72	5,022	
2. 'Ain Manâbah, on northern face of Jebel Kneisah.	,, ,, ,,	29·770	86·3	85	24·744	72·5	72·5	5,425	
3. Jebel Sunnîn, summit of west face, but estimated as 200 feet below highest point of mountain.	,, 24th, ,,	29·790	86	89	22·404	75	75	8,446	
4. Top of natural bridge near Neba' ul Laban ...	,, 25th, ,,	29·836	82	83·5	24·874	73	73	5 330	
5. 'Aqûrah, above village	,, ,, ,,	29·840	84	82·5	25·422	61·5	61·5	4,638	
6. Hasrûn	,, 27th, ,,	29·790	83·5	80	25·522	65·5	65·5	4,486	
7. The Cedars, platform near Maronite chapel. Mean of six observations.	August, 1887	29·861	83·5	83	24·029	79·4	79·4	6,420	
8. Pass above Cedars on road to Ba'albek	August 31st, 1887	29·883	82·5	83·5	22·330	74·5	74·5	8,530	
9. Peak No. 1. (*See* Note)	,, ,, ,,	By Aneroid.		...	...	.	...	9,994	
10. ,, ,, 2	,, ,, ,,	29·880	83·7	84·5	21·134	75·5	75·5	10,142	
11. ,, ,, 3	,, ,, ,,	29·878	83·7	84·6	21·070	75·3	75·3	10,227	
12. ,, ,, 4	,, ,, ,,	29·878	83·7	84·2	21·012	68·8	68·8	10,218	
13. 'Ain Âta	September 3rd, 1887	29·910	84·0	81·7	24·922	76·3	76·3	5,385	
14. Zahleh	,, 6th, ,,	29·810	81·3	76	26·706	56	56	3,170	
15. Aiya. (By Aneroid)	August 25th, ,,	...	...	...	...	...	...	3,615	
16. Damascus. Mean of morning observations ..	July, 1890	29·749	80·5	82·4	27·597	77·7	77	2,280	2,337
,, ,, afternoon ,, ..	,,	29·754	83·2	86·2	27·541	85·5	89	2,394	
17. Bludân. Mean of 18 observations	July and August, 1890	...	...	...	...	...	...	5,133	5,158
								5,197	
18. Highest peak back of Bludân	August 20th, 1890	29·836	86	87	22·578	67·3	63·5	8,090	
19. Abu-ul-Ḥîn	August 20th and 25th, 1890	29·807	85·6	87·2	22·478	65	60·7	8,134	
20. 'Asâl-ul-Ward	August 26th, 1890	29·726	85	82·5	24·840	71·5	71·5	5,255	
21. Yabrûd (fountain)	,, ,, ,,	629·72	86·2	84	25·502	83·3	82·0	4,586	
22. Halîmat Qabû	,, 28th, ,,	29·841	87·2	86·1	22·566	64	59	8,045	
23. Deir 'Atiyah	,, ,, ,,	29·820	88	88	26·080	79·7	81	4,016	
24. Ma'lûla, garden of Mar Sarkîs	September 1st, 1890	29·864	82	82	25·354	64·3	64	4,737	

Notes

1. French map gives for highest point on Damascus Road 1,542 metres = 5,059 feet. As my observation was taken some 30 feet below the highest point, this is a very close agreement.

3. Jebel Ṣunnîn. French map, 2,608 metres = 8,557 feet. I was unable to ascend to the highest point for lack of time, but my reading, plus the estimated remainder, would make the altitude 8,650 (about). Burton quotes Van du Velde (Scott), 8,554.

5. 'Aqûrah French map. 1,400 metres = 4,593 feet. A remark may be made in respect to this village, which is true with a great majority of villages in the mountainous districts of Syria. They are built on hillsides, so that the top of the village may be several hundred feet higher than the lower part. This fact of itself will explain many differences in the altitudes given by various travellers.

7. The Cedars. Burton (I., 257), quotes Van du Velde, who in turn takes Major Scott as his authority, 6,315 feet. French map gives 1,925 metres = 6,316 feet.

8. Burton (I., 257), 8,351 ; also (I., 76), 7,700.

9–12. The peaks north of the Cedars are the highest in Lebanon or Anti-Lebanon. Burton is the only original authority with which I am acquainted which gives names to them all ; but, although I am quite familiar with them having ascended them three times, I cannot certainly identify his peaks, except No. 4. I think my No. 1 is his Ḍhahr-ul-Qoḍîb (wrongly transliterated Zahr-ul-Kazîb), to which he assigns an altitude of 10,018. This was obtained by means of mercurial barometer ; all others of his observations are by aneroid. No. 2, Jebel Muskiyah, 10,131 ; No. 3, Jebel Makmal, 9,998, and No. 4, Jebel Timârûn, 10,533. This last is given by the French map as Ḍhahr-ul-Qoḍîb, 3,063 metres = 10,049 feet (mis-quoted by Burton, 6,063 metres !). None of these names have I ever heard from shepherds or others in that region except Ḍhahr-ul-Qoḍîb, a name which they sometimes apply to the whole range, and sometimes to the particular peak, No. 4. The names most commonly given to the whole range, just north of the Cedars, are Jebel-ul-Arz, "the Cedar Mountain," and Jebel Fam-ul-Mizâb. This latter, which is also applied to the rounded peak overlooking the Cedars to the north, means "the Mountain of the Mouth of the Waterspout," and is given very appropriately from the way in which the water is drained from the little depression among the highest peaks.

14. Zaḥleh. French map, 945 metres = 3,100 feet.

16. Damascus. The great difference between the results of the morning and afternoon observations is noteworthy. Probably the explanation lies in a fact I have frequently noticed, that the diurnal variation of the barometer is much greater in the interior than it is at Beirût. This, being quite unknown in amount necessarily introduces an element of uncertainty into all barometric determinations in the interior ; but, in

general, observations taken in the middle of the day will give higher resulting altitudes than those in the morning or evening. Indeed, in this part of Syria, where there are high mountains, and plains between which become greatly heated during the day, it is evident that unknown and unknowable local conditions play an important part, and make barometric determinations at best but approximations. These remarks, true for mercurial barometers, apply with tenfold force to determinations by means of aneroids, which are most erratic in their readings, and which need to be compared with a mercurial barometer not only at the beginning and end of each journey, but every few days during it. Other determinations of the altitude of Damascus are as follows:—French map, east of city, 697 metres = 2,286. Stübel's map, "Dschebel Hauran," 631 metres = 2,070, plainly too low. Map of German Palestine Exploration, 691 metres = 2,266 feet. New Map of Palestine Exploration Fund, 2,362, being the figures given by the French map for some distance west of the city. Burton gives no results.

17. Bludân. The new map of the Palestine Exploration Fund gives 5,140.

18. The Peaks above Bludân. Here, as in 9–12, I have been unable to certainly identify Burton's names, although I summered in Bludân and ascended the mountains several times. But the peak called Shayyâr 'Ain-un-Nusûr is certainly placed too far north both on Burton's map and on the new map of the Palestine Exploration Fund; the "Fountains of the Eagles," from which it is named, are at the head of the steep valley which runs north-east from Bludân. An aneroid determination of their altitude gives 7,550 feet. The peak whose altitude I have here given is immediately to the south, overlooking the little meadow in which the fountains are situated.

19. Abu-ul-Ḥîn. There is no difficulty in identifying this peak. Burton gives 8,330. But a re-calculation from his observation, vol. I, p. 259, applying the correction there given, and using the mean monthly barometer at sea-level, corrected for temperature (29·775), and day temperature at Beirût for July and August (85·6), I obtain as a result 8,031 feet. The same remarks apply to the other observations and results given on the same page of his book.

20. 'Asâl-ul-Ward. Burton, 5,553; re-calculated, 5,232.

22. Ḥalîmat Qabû, the northernmost prominent peak of Anti Libanus. Burton gives 8,257; re-calculated, 8,000. Burton names the two other "Ḥalaïm," or peaks immediately south of Ḥalîmat Qabû, as Ḥalîmat Qar'â and Ḥalîmat Kurrays; but our guide named them Ḥalîmat Qârah (so named from the town not far distant, on the plain) and Ḥalîmat Qar'â, respectively.

The other high peak of Anti-Lebanon, called by Burton "Tala'at Musa," and whose altitude is given by him as 8,721 feet (re-calculated 8,440), I did not have an opportunity to ascend.

24. Ma'lûla. My observation was taken in the garden of the convent of Mar Sarkîs, above the village. I should estimate the altitude of the

village to be 4,600–4,650. The German "Palästina" Map gives 1,429 metres = 4,688 feet.

15. The aneroid observations at Afqa, and also in No. 9, are corrected according to comparisons made with the mercurial barometer within a few hours both before and after, and are hence comparable with the other determinations in accuracy.

Syrian Protestant College,
Beirût, Syria,
January 5th, 1891.

PROVERBS AND SAYINGS AMONG THE SPANISH JEWS.

By Rev. J. E. Hanauer.

I forward a list of "Ladino" or Judeo-Spanish proverbs. Whether or not these come from European sources I am unable to say. With the exception of one or two, for instance, "All is not gold that glitters," they were new to me when I collected them, not from books, but as they fell from the lips of Spanish Jews in the course of conversation. I noted them down, and when I had collected a good number a Judeo-Spanish scribe wrote them down on the paper I send, and from my dictation. Nos. 38, 39, were added by him, and as I have never heard them used in conversation I cannot vouch for them. In my notes I have in several cases indicated what seem to me to be their equivalents in English or German.

The transliteration is arbitrary, I have no knowledge of Castilian Spanish, and have therefore given the proverbs as they sounded to my ears, and were noted down when I first heard them.

(1) קאדה חונו טרחאה לה ברחזיקה · פחרה סו פטיקה ·

1. "Cada uno trava la brasika para su petika." "Everybody draws the little embers for his little cake." Amongst the Arabs and fellahin there is a saying exactly similar.

كل واحد بيصحب الجمر الى قرصهِ

(2) חונה מחנו לחאה לה חושרה : חי לחם דוס לחאן לה קחרה ·

2. "Una mano lava la otra, e las dos lavan la kara." "One hand washes the other, and both wash the face."

(3) מישליקירה מחטה טרים · סייטי מחרידום חין חון מיז ·

3. "Mishlikera mata tres, siete maridos in un mes." "A meddlesome

or tale bearing woman kills three (persons) and (gets) seven husbands in one month."

NOTE.—The three persons killed (metaphorically) are herself, the one to whom she has been babbling, and the person slandered.

(4) מאריד ייני · מאריד בואינו ·

4. "Marido yeno, marido bueno." "A full, *i.e.*, rich, husband is a good husband."

(5) חסידה די בואינה נודיה · כיזה לאס מזוזות · חרובה לאס פיטאס ·

5. "Chassida, e buena Judea, beza las mezzuzoth, arrova las pitas." "She is a Chassida, and a good Jewess, who kisses the mezzuzoth and steals the loaves," is a striking description of a hypocrite."

(6) קין אל סיילו איסקופי · אלה קאירה לי קאיי ·

6. "Quen al cielo aseupe, a la kara le kaye." "Whoever spits at the sky will have the spittle fall back on to his face."

(7) דיזיאו לה פריסייאדה · נייגי טוסטאדה ·

7. "Desio la presiada, nieve tostada." "The precious (*i.e.*, spoilt) girl desired toasted snow." This is the same as the English saying about a spoilt child crying for the moon.

(8) אל טיניוזו · אונה קרוסטה מאס ·

8. "Al tenioso una krosta mas." "To the person afflicted with a scab one crust more (or less does not matter)." The real sense seems to me to be that folks are too apt to think that it does not matter much if one oppresses those who happen to be down in the world. It may also be the equivalent of the English saying, "It never rains but it pours."

(9) גרניקו גרניקו · סי לי אינכי אל גאיו איל אל פאפיקו ·

9. "A granico, a granico, se le inche, al gayo el papico." "With one little grain after the other the cock fills his little crop," *i.e.*, many mickles make a muckle.

(10) אלטו אלטו קומו איל פינו · מינודו מינודו קומו איל קומינו
אמארגו אמארגו קומו לה פיאל · דולסי דולסי קומו לה מייל ·

10. "Alto, alto como il pino, minudo minudo come il commino, amargo amargo come la fiel, dulce, dulce come la miel." "Tall, tall (*i.e.*, sublime)

* NOTE ON 7.—I have sometimes heard פרינגייאדה "pregniada," substituted for פריסייאדה in 7. It must be borne in mind that Orientals (whether Christians, Jews, or Moslems), even though most respectable, frequently, as Mr. Neil observes in his works on Palestine, speak freely and unreservedly on subjects which are banished from European society as topics unfit for conversation.

as the pine tree, minute, minute as the cummin seed, bitter, bitter as gall, sweet, sweet as honey," is a riddle descriptive of the art of reading.

(11) סייטי חיסקלאבאס חי בואין מאריטו · קי לו · סייבאן פור חיל חויידו ·

11. "Siete esclavas, e buen marido, que lo siervan por el oyido." That she may have "seven slaves and a good husband to serve her at her least word," expresses the wishes of a mother for her daughter.

(12) מדיקו חי קומאדרי · קאמינאן די טאדרי ·

12. "Medico e commadre, camminan de tadre." A doctor and a nurse are out late.

(13) טי לו דיגו לטי מי חיזה · פאדרה קי לו חינטייגדאס טו מי נוחירה ·

13. "Te lo digo a ti mi eja, para que lo entiendas tu mi nuera." "I tell it thee, my daughter, that thou, my daughter-in-law, shouldest understand it," proves that the art of 'talking at' a person is cultivated even by the Sephardim.

(14) ניגנונו סאבי לו קי חיי חין לה חוייה · מאס קי לה קוגחרה קי לו מניה ·

14. "Ninguno save lo qui ai en la oya, mas que la cucchara que lo menia." "No one can know, better than the spoon that stirs it, what is in the pot." (The heart knoweth his own bitterness, and stranger intermeddleth not with his joy. Proverbs xiv, 10).

(15) לה מאדרי קון לה חיזה פור דאר חי טומאר סון חמיגאס ·

15. "La madre con la ija por dar e tomar son amigas." "In giving and taking the mother and daughter are friends." The sense of this is obscure.

(16) לה חיבי חין לה מאר · חי מי חיזו מאל ·

16. "La itschi en la mar e me izo mal." "I threw it into the sea, and it injured me," seems to point to the wisdom of a man keeping his own counsel.

(17) חיל רי חיסטה חחזינו · שיך חיסלאם ביבייו לה קורה ·

17. "Il re esta hazino, Sheikh Islam bevio la cura." "The King was sick, and the Sheikh ul Islam had to drink the physic," shows that it sometimes happens that subordinates have to act as the scapegoats of those above them.

(18) פוקו מי מאנקה מאיסטרה · פיזים חי מאנגאס חי ניזגאס ·

18. "Poco, mi manca maestra, pijas e mangas, e nezgas." "But little more is needed, mistress, (only) bands, sleeves, and gussets," *i.e.*, everything.

(19) די ון דיא ון דיא · קאזה מי טייא ·

19. "Di un dia undia, caza mi tia." "From one day to the other my aunt is on the point of marrying," *i.e.*, procrastination is the thief of time.

(20) יו לו סי · די לה שיסקינבי ·

20. "Yo lo se, de la schkenbe." "I know all about it, as about the tripe," is said of persons who pretend to knowledge they do not possess. In connection with the above the story of a young wife who, though perfectly ignorant of cooking, yet always answered, "Yo lo se"—"I know all about it," to an old friend who wished to instruct her, is told. The latter, in revenge, directed her to place some tripe her husband had brought home, on the fire to cook without having first cleaned it. The result, which may be imagined, cured her effectually of saying, "I know all about it" when taught anything.

(21) בַּיטיס אל אזנו · ני פריטו ני בלאנקו ·

21. "Vites al asino? Ni preto ni blanco." "Hast thou seen the ass? Neither a black nor a white one," is the curious answer given to an impertinent questioner.

(22) בַּיזיטה סין סול · נו איס די קוראסון ·

22. "Visita sin sol, no es di corason." "A visit without sunlight does not come from the heart."

(23) יו קי איסטי קאיינטי · קי סי ריינאן לה ג'נטי ·

23. "Yo, que este cayente, que se rigan la gente." "As long as I am warm (I care not whether) people laugh," shows a mo t philosophical (or shall I say cynical?) contempt for public opinion.

(24) שאסטרי אראגאן · קואנדו פיידרי לה אלגוזה · קואנדו פיידרי איל דידאל ·

24. "Shastre haragan, quando piedre la alguja, quando piedre el didal." "A worthless tailor at one time loses the needle, at another the thimble," *i.e.*, a bad workman blames his tools.

(25) בואין אמאניסיר · סי קונוסי איל בואין דיא ·

25. "Buen amanser se conosse el buen dia." By a good dawn a good day may be known.

(26) נו סי דיזי קואטרו · סי נו איסטה אל סאקו ·

26. "No se dise quatro, si no esta al sacco." Do not say "four" till they are in the pocket, *i.e.*, do not count your chickens before they are hatched.

(27) מוצו גאסטי אי מאל · שבת ·

27. "Muncho gaste e mal shabat." "Many expenses and yet a bad Sabbath."

(28) קין נו טייני לה חירמוזה · ביזו לה מוקוזה ·

28. "Quen no tiene la ermoza, beza la mokosa." He who has not got the pretty one kisses the ugly one.

(29) לה לאבאנדירה חיזו חיל לאבאדו · לה בוליסה סי קאנסו ·

29. "La Lavandera iso el lavada, la bolisa se kanso." "The laundress does the washing; the mistress of the house is fatigued," or in other words, "those in a high position, as a rule, take the credit which is due to those below them for good work done".

(30) אלייבאנטה לה קאבייסה די חיל קולייברו · חי נו די בן אדם ·

30. "Alevanta la cavessa de el colevra, e no de Ben Adam." "Raise the head of a serpent, but not that of a human being," is the Judeo-Spanish equivalent to the German "Undank ist der Welt Lohn," *i.e.* "The world's reward is ingratitude."

The same sentiment is expressed in the following proverb (31)—

(31) חזיר ביין קון חיל מאלו · ני מירסיד ני גראדו ·

31. "Azer bien con el malo, ni merçed ni grado." "To do good to the evil is a thankless and ungrateful task."

(32) די חיל דזיר אל חזיר · קומו לה נוֹבֵי אל אמאניסיר ·

32. "De el dezir al azir, como la notche al amansir." "Between 'saying' and 'doing' there is a difference as great as between night and day break." "Deeds, not words."

(33) לו קי לה בֵּייזָה קריאה · אינטרי סוניוס לי בֵּינייאה ·

33. "Lo que la vieja keria, entre soenios le venia." "That which the old woman desired happened to her in a dream," or, "The wish is father of the thought."

(34) טודו לו קי אריליומברה נו חים חורו ·

34. "Todo lo que arelombra no es oro." "All that glitters is not gold."

(35) חיל מחרידו חרמפי חיל בַּאזו · חי לה קולפה חים לה מוזיר·

35. "El marido arrompe el vaso, è la culpa es la mojer." "The husband breaks the vessel, but it is the wife's fault."

(36) קין בחטאייה לה פוחירה · חויי סו ריפוחיסטה ·

36. "Quen batial a puerta, oie su ripoesta." "He who knocks at the door will hear his answer," equivalent to the German "Wie man in den Wald hinein schreiet, so hallt es wieder heraus." "As one shouts into the wood so it echoes back."

(37) מי בֵּיזינה מי דיזיחונרו חונה בֵּיז · ליו דוס חי טריס ·

37. "Mi vicina me disonero una vez, lio, dos e tres." "My neighbour (fem.) insulted me once, I will insult her twice and thrice," is the expression of a spirit thoroughly vindictive.

(38) סי איל איימפרייסטיימו איירה בואינו · קאדה חומו איינפרייסטאדה חסו מוזיר ·

38. "Si el imprestemo era bueno, cada uno enprestava a su mujer." Were it a good thing to lend, everybody would lend to his own wife.

(39) מי איזיקו · מי אנאקיטו ·

39. "Mi iziko, mi izikito." "My little son, my wee little son," "Every mother's goose is a swan;" or, "Mi iziko, mi atchakitiko." "My little son, my little excuse."

NOTES ON DR. POST'S PALMYRENE INSCRIPTIONS.

By Rev. J. E. Hanauer.

The following notes are based upon a comparison of the 40 Palmyrene inscriptions, figured, transliterated, and translated, &c., by Prof. Euting, in his "Epigraphische Miscellen" (Sitzungs-Berichte der Kœniglich-Preussischen Akademie der Wissenschaften zu Berlin), 1885, with the five inscriptions reproduced on page 36 of the *Quarterly Statement* for January, 1891 :—

(A.)

	Transliteration.	*Translation.*
1st line	ע ? ?	'A ? ?
2nd „	מקומ (ו)	Moquim (u).
3rd „	זדי בת (ברת)	Zaydi, daughter of.
4th „	(ע ?) מהו	'Amhu (his or their ?) (kinsman or uncle).

In the first line I am not able to read more than the one letter ע. I do not know what letters the two other characters represent. The second line contains one word מקומ, a name that seems to be pretty common in Palmyrene texts. It occurs in Prof. Euting's No. 22, Plate VIII, and also in his Nos. 42 and 43, Plate IX. The third line contains two words, the first of which, זדי, is a name still used amongst the fellahât of Palestine, whilst the next word is the word בת, Hebrew for daughter. This form also occurs in Euting's No. 25, Plate IX, though the form more frequently met with seems to be ברת (*see* Euting's Nos. 5, 6, 18, 22, 23). The construct state, whether the word be ברת or בת, requires to be followed by a noun. I am not sure whether מ, the first character on the fourth line, is equivalent to ע, as it is in Phœnician and Samaritan. Assuming it to be so, then the word עמהו, 'Amhu, is either

a name, or identical with the Arabic عم, which really means "uncle," though I find it is often used in Jerusalem in the sense of "kinsman." When speaking to me of my own father-in-law, for instance, natives constantly use the word عمك, literally, "thy uncle." I cannot help thinking that, as at the end of B, C, D, respectively, we have the word אחוה = אחוה, marking their position in the family as "brother," so in this case בת עמהו shows the lady to have been "an uncle's daughter" = cousin.

(B.)

	Transliteration.	*Translation.*
1st line	נבו זרי בר	Nebo Zari (Nebo is my prince),
2nd „	בר נבו אחוהם	son of Bar Nebo, their brother.

The word נבו = נבו = Nebo, occurs in Prof. Euting's inscription (No. 4, Plate VII) discovered in the vicinity of the well-preserved temple (said to be of Diocletian) at Damascus by Herr Luettecke, Imperial German Vice-Consul, in March, 1883. In that inscription נב forms part of the name עבד נב = Zabd-Nebo. Nebo-Zari (Nebo, or Mercury, is my prince) suggests my mentioning another name, that of בל שורי = בל שורי = Bel-Suri (or Bel is my wall), in Euting's No. 8, Plate VIII, as analogous in form. בר is clearly בר, that is, "Son." It is found in each one of Euting's inscriptions numbered respectively 4, 5, 6, 7, 8, 13, 19, 20, 21, 22, 24, 26, 27, 28, 29, 30, 31, 32, 33, 35, 36. As it is repeated in C, D, and E, I need say no more about it.

The last word, אחוהם = אחוהם, occurs, but without the final ם, sign of the 3rd person plural, also in C and D, as well as in Prof. Euting's above-mentioned inscription No. 4 from Damascus, and also in his No. 34, Plate IX. We now come to Prof. Post's Inscription C.

(C.)

	Transliteration.	*Translation.*
1st line	בר נבו בר בר נבו	Bar Nebo, son of Bar Nebo
2nd line	אחוהי	(*i.e.*, grandson of Nebo, his or their brother).

The last word, אחוהי = אחוהי, occurs in exactly the same form in Prof. Euting's No. 4, and his translation reads "seines Bruders (oder seiner Brueder)," his brother's (or his brethen's).

Bar Bar Nebo = the son of the son of Nebo.

(D.)

	Transliteration.	*Translation.*
1st line	בר התה בר	Bar Hth (H.T.H.), son of Bar Nebo (or grandson of Nebo) (their ?) brother.
2nd line	בר נבו אחו	

I have no remark to make on D.

(E.)

	Transliteration.	*Translation.*
1st line ...	מברדת	Mbrdt. (M.B.R.D.T.), (possibly a name) of Bar Bar Nebo, Bar Bar Nebo (son of Bar Nebo, son of Bar Nebo, or, son of the son of Nebo, son of the son of Nebo).
2nd line	בר בר נבו בר	
3rd „	בר נבו	

מברדת, Mbrdt, *may*, *possibly*, be a name, though I do not think it is. The root is ברד, hail, cold, &c. The form מברדת is not to be found in any lexicon to which I have access. It is certainly not either in Gesenius or Buxtorff. In Arabic, however, we have a noun spelt in exactly the same manner, viz., مُبَرِّدَة, plural مبردات, and meaning a refreshing or cooling drink. As Dr. Post's Inscription E is the legend attached to the picture of a man taking his ease, and holding a drinking vessel in his left hand, I am very strongly of opinion that the inscription simply gives the title or subject of that picture, viz. :—The Refreshment of Bar Bar Nebo, &c., or Bar Bar Nebo enjoying himself. I trust the above notes may prove interesting to readers of the *Quarterly Statement*, and that the Editor will kindly allow them a place in the next issue.

Jerusalem,
February 4*th*, 1891.

THE LACHISH INSCRIPTION.[1]

As I stated last summer in the "Academy," the inscription on the piece of pottery discovered by Mr. Petrie, at Tel el-Hesy, reads לסמך, *le-samech*, from *samak*, "to uphold," and must be translated "belonging to Samech. We find the name Semachiah in 1 Chr. xxvi, 7. The shape of the letter *samech* is interesting, as it presents us with the oldest form of the letter in the alphabet of Israel hitherto known.

A. H. Sayce.

Another well-known Semitic scholar writes :—

The inscription seems to read לחמך, *i.e.*, dedicated or belonging to

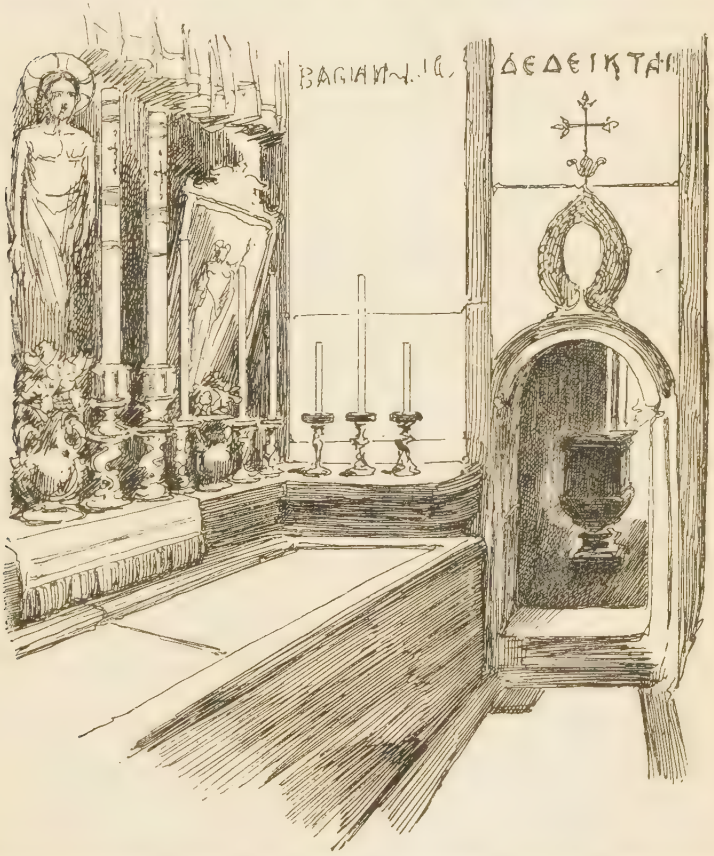
[1] *Quarterly Statement*, 1891, page 70.

h m k. Whether *h m k* is a name of a divinity or of an owner I cannot decide. I do not know of another instance of this name. If you will give my transcription in the journal please do not mention my name. Anyone could have given you the transcription and there is no merit of mine.

ENTRANCE TO THE HOLY SEPULCHRE.

By William Simpson, M.R.A.S.

I am under the impression that no sketch of the Entrance to the Holy Sepulchre has appeared in any of the Palestine Exploration Fund's



publications ; so I have copied out a rough one I made in 1869, which

is taken from inside the sepulchre. It was M. Clermont Ganneau that first called attention to the importance of the fact that the tombs at the west of the Holy Sepulchre were *Kokim* tombs, and from that he pointed out that the spot was in all probability an old Jewish place of sepulchre. The sketch given with this, shows that the Holy Sepulchre itself was also a *Kok*, for the doorway still retains the form of the opening of one of these Jewish tombs. As it is only lately that the distinction between *oculus* and *Kok* has been arrived at, its value as an indication of antiquity was not likely to have occurred since the time of Constantine, hence the unlikelihood that anyone at a later date has imitated the older form. I have read statements that the original rock of the tomb can still be seen in some part of the entrance ; but these affirmations always appeared as if they required to be authenticated. Surely some one on the spot could do this. The *Kokim* tombs on the west of the Holy Sepulchre have no ledges in them ; this would tend to the suggestion that the ledge in the Holy Sepulchre may have been excavated, and perhaps this was done to form it into an altar, for Mass was at one time celebrated upon it. Some have supposed that there is a trough, under the marble slab, which formed the real tomb.

IRRIGATION AND WATER SUPPLY IN PALESTINE.

By William Simpson, M.R.A.S.

From what I have learned regarding the pits in the Vale of Siddim, the conclusion appears to be, that whatever they may have originally been, they were no part of a *Karaize*. From calling attention to them some important information has, as a result, been brought forward. Mr. Gray Hill's letter describes what is almost certain to be a *Karaize* at El Beda, near Palmyra, which is also described in his book, "With the Bedouins," p. 159 ; and his account of the newly discovered source of water in Palmyra is also most probably an aqueduct of the same kind. In the Wâdy Byâr, south of Solomon's Pools, there is a rock-cut conduit which is several feet below the surface, and in its construction shafts were sunk at a number of places, thus realising the exact idea of a *Karaize*. These shafts are marked on the large map, and the description of them will be found in Sir Charles Wilson's paper on "The Water Supply of Jerusalem." It is seldom that these conduits were cut through the rock, but in my former communication I mentioned one at Hada, near Jellalabad. My attention has also been called to some very ancient conduits at Lake Copais in Bœotia. Operations have been going on there for some years back to drain the lake, but it would seem that attempts of the same kind had been made before the time of Alexander the Great. It is said that there are natural channels under

the hills to which the name *Katavóthra* had been given, but as these were not sufficient a number of *emissarii*, or tunnels, were made to carry off the water, one of which is nearly 4 miles long, and it has about 20 vertical shafts, which are now choked up, but they are supposed to be about 100 or 150 feet deep. Crates attempted to clear out these conduits in the time of Alexander the Great, so that they must be of considerable antiquity. Perhaps other explorers may be able to supply further details, but the data seems already sufficient to establish the point, that the *Karaize* as a means of water supply has existed from a remote period over the wide space from Afghanistan to the Mediterranean.

PITS IN THE SHITTIM PLAIN.

By Rev. James Neil, M.A.

For Dr. Selah Merrill's information, let me say that the journey on which I discovered these pits was arranged by a representative of the German Consulate at Jerusalem and the German Chaplain, Pastor Weser, to investigate the claims of the Shapira pottery, and to carry on excavations for this purpose on the highlands of Moab. Pastor Weser begged me, as the English Chaplain at Jerusalem, to accompany the expedition to see fair play, because the English savans from the first regarded the Shapira pottery as spurious. I had, indeed—very fortunately, as I now know—to "go far out" of my "way." The ferry in the neighbourhood of Jericho was broken, and we were compelled to ride some 18 miles up the west of the Jordan Valley to the ferry opposite *Tell Damieh*, and the same distance down the east of the Valley to Ali Diab's camp, then in the Plain of Shittim, near *Tell Keferein*. Later on we had to return the same way, so that I rode twice past these lines of pits. On my return I mentioned my discovery to Major Conder and Mr. Drake, and they told me that they had just found similar pits in the neighbourhood of *Ain Fusail*, but it now appears that they were rock-cut cisterns, or *beers*.

I did not take special and accurate measurements of the pits, nor have I said that I did. In my descriptions I have very naturally adopted those published by the "American Palestine Exploration Society's Fourth Statement," January, 1877. Let me again refer the readers of the "Quarterly" to my careful treatment of the whole subject in an article on "The Site of the Cities of the Plain and the 'Pits' of the Vale of Siddim," in the "Theological Monthly," May, 1890 (Messrs. J. Nisbet and Co.), in which I have given Dr. Selah Merrill credit for his very interesting and valuable identification of the probable sites of the Cities of the Plain, now so remarkably confirmed by my discovery of the

"water-pits of earth," בְּאֵרֹת חֵמָר, of which the valley to the north of these five cities was full (Genesis xiv, 10).

Dr. Selah Merrill says in his original report, "What those pits (the slime pits of Genesis xiv, 10) were I do not know, nor do I know the object of the pits which at present exist." In the last "Quarterly" he says, "my impression was these pits were used for military purposes." Now these two statements are, no doubt, to be reconciled by the account of the legend which the Bedaween told him, and which Sheikh Goblan in part told me, as to the adventures of the fabulous Sheikh *Zeer*, for at its close he tells us, "this legend seems to indicate clearly that the pits were for military purposes." But I should like to remind Dr. Selah Merrill of what he tells us about this familiar story of their folk lore: "After a while he (Sheikh *Zeer*) tried to get his dominions back, and made war upon his own people for that purpose. They dug these pits *expecting that he would fall into them and be killed. He fell in but his nephew rescued him*," &c

Now what meaning would this have, or what shadow of foundation in fact, if the pits, as the archeologist of the American Palestine Exploration Society would lead us to suppose, were but some 3 to 6 feet only in depth? But all will see, if they were formerly *Karaize* pits, or deep wells, how forcible and natural is the allusion to the falling in with risk of being killed, and to the need of being rescued from without.

The complete and conclusive answer to Dr. Selah Merrill's supposed difficulties as to whence came the materials by which the pits were filled up, and as to how the rims of the basin-like mounds around them could still remain to the height of a few feet, lies in the fact that the appearances now presented by these three lines of pits are precisely the same as those presented by the ruins of the *Karaize* system in the desert beyond Damascus, on the way to Palmyra—so much so that I instantly recognised them—and that they are like nothing else!

Can Dr. Selah Merrill be serious when he says, as a reason why these pits were not wanted for irrigation purposes, "Canals to-day carry water south of the stream (*Wady Nimrin*), and were water ever wanted north of it why would it not be carried thither in the same way?" Simply because the Jordan valley falls to the south and rises towards the north! He says, hypothetically and doubtfully, "were water ever wanted north of it." Why the want of water in that waste wilderness is woeful. It is for some 10 miles one of the most arid spots in Palestine, and that is saying a good deal. It is, moreover, one of the hottest and most rainless regions. I shall never forget how I suffered from thirst on the burning day when I traversed it first *en route* from *Tell Damieh* to *Nimrin*—a thirst and incipient fever which the Arabs of our escort sought vainly to assuage by giving us to chew the stalk and leaves of a succulent plant which they scoured the country far and wide to secure.

Excavations should certainly be made at this spot when the first opportunity offers, for if the channel at the bottom proves to be cemented, which, however, is very doubtful (see my discussion of this in my article in the May, 1890, "Theological Monthly"), the matter will be at once set at rest. But in any case we may hope to find evidence of the filling up of the *Karaize* pits, which I have no doubt whatever existed here in ancient times, not only in the three rows, of which ruins now remain, but also in many more crossing one below the other, as we know they do at the present day on the plains of Damascus. If I am right, where the lines of pits end on the east side near the hills, or where if extended a little further they would end, by digging we should come to water, and this again would be a certain proof.

I say *solvitur explorando;* and now let our Fund get to work at the first opportunity. We could engage in few more inexpensive, interesting, and important excavations. Think of finding pits *in situ* mentioned as existing 4,000 years ago!

COMPARISON OF THE HIGHEST AND LOWEST TEMPERATURES OF THE AIR, AND RANGE OF TEMPERATURE IN PALESTINE AND IN ENGLAND IN THE TEN YEARS ENDING 1889.

By James Glaisher, F.R.S.

The observations at Sarona were taken by Herr J. Dreher, the instruments were made by Negretti and Zambra, and examined by myself.

The observations at Blackheath were taken during the same ten years, by instruments of a similar construction to those at Sarona, by myself.

TABLE I. shows the Highest Temperature of the Air at *Sarona* in every Month.

Months.	Years.										Means of 10 years.
	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	
	°	°	°	°	°	°	°	°	°	°	°
January ..	63·0	80·0	72·0	78·0	71·0	70·0	70·0	78·0	76·0	72·0	73·0
February..	78·0	75·0	81·0	72·0	65·0	73·0	82·0	77·0	78·0	80·0	76·1
March ..	83·0	87·0	82·0	97·0	79·0	90·0	83·0	89·0	98·0	97·0	88·5
April ..	94·0	96·0	89·0	95·0	97·0	90·0	90·0	97·0	91·0	102·0	94·1
May ..	103·0	99·0	88·0	99·0	98·0	103·0	86·0	98·0	97·0	100·0	97·1
June ..	91·0	96·0	84·0	89·0	97·0	93·0	112·0	89·0	89·0	100·0	94·0
July ..	92·0	89·0	87·0	88·0	96·0	88·0	89·0	89·0	93·0	92.0	90·3
August ..	91·0	106·0	89·0	92·0	90·0	91·0	91·0	92·0	91·0	90·0	92·3
September	102·0	92·0	92·0	106·0	86·0	94·0	94·0	90·0	90·0	90·0	93·6
October ..	96·0	89·0	92·0	94·0	100·0	98·0	96·0	100·0	105·0	98·0	96·8
November	96·0	89·0	93·0	84·0	79·0	84·0	85·0	82·0	80·0	86·0	85·6
December	77·0	72·0	77·0	76·0	82·0	80·0	81·0	76·0	75·0	82·0	77·8
Means ..	88·8	89·2	88·5	89·2	86·7	87·8	88·2	88·1	88·6	90·8	88·3

By looking over this table, it will be seen that the temperature of the air has reached or exceeded 100° in every year, excepting 1882. The highest temperature was –

In 1880, on	May 23rd	....	....	....	....	103°
1881 „	Aug. 27th	....	....	....	....	106
1882 „	Nov. 1st	....	....	....	....	93
1883 „	Sept. 30th	....	..	....	....	106
1884 „	Oct. 16th	....	..	....	....	100
1885 „	May 23rd	....	....	....	....	103
1886 „	June 15th	....	....	....	....	112
1887 „	Oct. 29th	....	....	....	....	100
1888 „	Oct. 19th	....	....	....	....	105
1889 „	April 20th	...	....	....	....	102

Thus the maximum temperature of the year has occurred—

Once in April.
Twice in May.
Once in June.
Once in August.
Once in September.
Three times in October.
Once in November.

In the year 1880 the temperature on May 22nd was 102°, and on September 6th it was 102°.

In the year—

1885, on	May 10th,	the temperature	was	....	102°
1886 „	June 14th	„	„	....	102
1888 „	October 17th	„	„	....	102
1888 „	October 18th	....	....	....	104
1889 „	May 10th	....	....	....	100
1889 „	June 8th	....	...	....	100

Thus in ten years the temperature has been 100°, or more than 100° on 17 different days; the highest of all was 112° in 1887, on June 15th. The months in which the temperature has always been less than 100° are January, February, March, July, November, and December.

It reached or exceeded 90°, in the year—

1880	....	....	....	....	....	on 36 days.
1881	....	....	....	....	....	„ 27 „
1882	....	....	....	....	....	„ 8 „
1883	....	....	....	....	...	„ 16 „
1884	....	....	....	...	....	„ 14 „
1885	....	....	....	....	....	„ 24 „
1886	....	....	....	....	....	„ 16 „
1887	....	....	....	....	....	„ 25 „
1888	....	....	....	....	....	„ 39 „
1889	....	....	....	....	....	„ 31 „

or in 10 years the temperature has reached or exceeded 90° on 236 days.

TABLE II. shows the Highest Temperature of the Air at *Blackheath* in every month.

Months.	Years.										Means of 10 years.
	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	
	°	°	°	°	°	°	°	°	°	°	°
January ..	54·5	48·0	52·5	54.0	54·5	52·0	50·5	51·5	51·0	53·5	52·2
February..	53·9	52·1	54·5	53·5	56·5	57·5	46·0	52·0	50·5	56·0	53·3
March ..	66·0	59·8	65·0	54·3	68·4	58·0	60·0	56·5	56·0	58·0	60·2
April .	67·8	67·6	65·0	69.5	69·0	72·5	65·5	63·5	66·0	65·1	67·2
May ..	87·2	76·2	75·0	81·0	81·0	75·8	74·5	69·2	77·7	83·0	78·1
June ..	80·3	81·6	74·0	84·0	82·0	86·8	79·8	82·6	84·5	84·5	82·0
July ..	78·5	94·0	78·0	85·0	86·5	87·1	86·8	90·0	75·0	80·0	84·1
August ..	81·3	84·3	81·0	84·0	91·0	77·5	86·5	86·2	86·0	86·0	84·4
September.	87·5	71·0	71·0	75·2	83·0	74·5	83·5	69·0	72·0	79·1	76·6
October ..	65·0	62 5	71·0	64·8	62·0	59·0	75·5	61·0	67·1	62·0	65·0
November	57·6	61·5	60·0	55.5	60·0	57·5	58·5	51·2	59·0	58·8	58·0
December .	55·8	52·0	56·0	53·5	54·5	49·2	54·0	50·5	57·0	53·0	53·6
Means ..	69·6	67·6	66·9	67·9	70·7	67·3	68·4	65·3	66·8	68·3	67·9

The highest temperature of the air at Blackheath was—

In 1880, in September....	87·5	being	15·5	less than	maximum	at	Sarona.
1881 „ July	94·0	„	12·0	„	„	„	
1882 „ August	81·0	„	12·0	„	„	„	
1883 „ July	85·0	„	21·0	„	„	„	
1884 „ August	91·0	„	9·0	„	„	„	
1885 „ July	87·1	„	15·9	„	„	„	
1886 „ July	86·8	„	25·2	„	„	„	
1887 „ July	90·0	„	10·0	„	„	„	
1888 „ August	86·0	„	19·0	„	„	„	
1889 „ August	86·0	„	16·0	„	„	„	

Thus the maximum temperature at Blackheath has occurred—

Five times in July.
Four „ August.
Once „ September.

In the 10 years the temperature has reached 90° on 3 days only, the highest was 94° in July, 1881. The lowest maximum at Sarona was 93° in 1882, and the lowest maximum at Blackheath was 81° in the same year ; the highest maximum at Sarona was in 1886.

By comparing the numbers in Tables I. and II. together, month by month, it will be found that with the exception of three months, the numbers in Table I. are larger than in Table II. The exceptions are July, 1881, when the temperature at Blackheath was higher by 5°, than at Sarona, August, 1884, and July, 1887, when at Blackheath the temperature was higher by 1° in both instances.

At Sarona the maximum temperature in relation to that at Blackheath was, in—

January	8·5	in excess in	1880,	varied to	26·5	in excess in	1887
February	9·5	„	1884	„	36·0	„	1886
March	10·6	„	1884	„	42·7	„	1883
April	17·5	„	1885	„	36·9	„	1889
May	11·5	„	1886	„	28·8	„	1887
June	4·5	„	1888	„	32·2	„	1886
July	5·0	in defect	1881	„	18·0	„	1888
August	1·0	„	1884	„	21·7	„	1881
September	3·0	in excess in	1884	„	30·8	„	1883
October	20·5	„	1886	„	39·0	„	1885-87
November	19·0	„	1884	„	38·4	„	1880
December	18·0	„	1888	„	30·8	„	1885

The greatest differences are in the winter months, the largest 42·7°

is in March, the next in order are October and November; the least differences are in July and August.

The mean of the 10 differences in each month, show the mean excess over Blackheath maximum temperature in—

January	was	20·8°
February	,,	22·8
March	,,	28·3
April	,,	26·9
May	,,	19·0
June	,,	12·0
July	,,	6·2
August	,,	7·9
September	,,	17·0
October	,,	31·8
November	,,	27·6
December	,,	24·2

and these numbers are the same as the differences between the numbers in the last column of Tables I. and II.

TABLE III. shows the Lowest Temperature of the Air at *Sarona* in every month.

Month.	Years.										Means of 10 years.
	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	
	°	°	°	°	°	°	°	°	°	°	°
January ..	32·0	40·0	34·0	39·0	32·0	40·0	43·0	32·5	37·0	42·0	37·2
February..	32·0	41·0	37·0	41·0	41·0	42·0	43·0	37·0	42·0	41·0	39·7
March ..	34·0	40·0	37·0	35·0	42·0	38·0	39·0	37·0	40·0	42·0	38·4
April ..	41·0	47 0	45·0	40·0	46·0	45·0	42·0	43·0	48·0	44·0	44·1
May ..	50·0	48·0	47·0	48·0	49·0	53·0	48·0	45·0	52·0	50·0	49·0
June ..	55·0	53·0	51·0	59·0	58·0	58·0	57·0	58·0	56·0	59·0	56·5
July ..	63·0	60·0	60·0	63·0	61·0	66·0	61·0	62·0	64·0	65·0	62·5
August ..	66·0	67·0	64·0	65·0	63·0	65·0	65·0	64·0	65·0	67·0	65·1
September	57·0	63·0	57·0	58·0	61·0	64·0	59·0	61·0	63·0	62·0	60·5
October ..	57·0	54·0	53·0	53·0	55·0	51·0	55·0	57·0	58·0	56·0	54·9
November	52·0	49·0	46·0	49·0	47·0	48·0	49·0	52·0	41·0	40·0	47·3
December	44·0	39·0	40·0	40·0	38·0	43·0	37·0	46·0	40·0	38·0	40·5
Means ..	48·6	50·1	47·6	49·3	49·3	51·1	49·8	49·5	50 5	50·5	49·5

The lowest temperature in the year—

1880	was	32°	in January and February.
1881	„	39	„ December.
1882	„	34	„ January.
1883	„	35	„ March.
1884	„	32	„ January.
1885	„	38	„ March.
1886	„	37	„ December.
1887	„	32·5	„ January.
1888	„	37	„ January.
1889	„	38	„ December.

Thus the lowest temperature at Sarona has occurred—

Five times in January.
Twice in March.
Three times in December.

The lowest in the 10 years was 32°, and this occurred five times, viz., 1880, January 29th and 30th; 1880, February 6th; and 1884, January 22nd and 24th.

The temperature was below 40° in the year—

1880	on	13	nights.
1881	„	2	„
1882	„	13	„
1883	„	2	„
1884	„	9	„
1885	„	3	„
1886	„	3	„
1887	„	15	„
1888	„	2	„
1889	„	3	„

or in 10 years the temperature on 65 nights has been below 40°.

By taking the difference between the lowest and highest temperature in each year, the range was—

In 1880	71°
1881	67
1882	59
1883	71
1884	68
1885	65
1886	75
1887	67½
1888	68
1889	64

The largest range, 75°, was, in 1886; the next in order was 71° in 1880 and 1883. The smallest was 59° in 1882, the next in order 64° in 1889. The mean annual range of the 10 years was 67½°

TABLE IV. shows the Lowest Temperature of the Air at *Blackheath* in every month.

Months.	Years.										Means of 10 Years.
	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	
	°	°	°	°	°	°	°	°	°	°	°
January ..	15·0	15·0	27·5	29·2	31·0	22·5	15·0	16·0	20·3	19·0	21·0
February..	23·3	28·2	26·0	31·9	29·0	26·0	20·0	19·5	17·0	17·2	23·8
March ..	27·0	24·2	30·0	24·0	27·5	25·0	20·1	22·0	23·5	17·0	24·0
April ..	33·1	29·5	36·0	31·3	30·0	28·5	31·5	25·8	25·5	31·8	30·3
May ..	31·9	34·0	38·0	32·5	36·1	31·5	30·3	32·3	34·5	39·8	34·1
June ..	38·9	39·7	42·5	42·5	44·5	41·2	39·8	43·0	45·0	45·5	42·3
July ..	45·0	45·5	48·0	44·5	48·9	47·5	45·7	45·5	42·0	46·5	45·9
August ..	46·5	45·0	48·0	47·4	46·0	43·0	46·5	42·0	44·0	42·8	45·1
September	41·5	41·0	37·5	53·5	43·8	35·5	40·8	33·0	40·2	35·0	40·2
October ..	28·8	28·5	32·3	37·0	35·0	32·0	38·0	24·0	26·3	33·5	31·5
November	25·0	31·0	26·0	29·0	25·2	27·5	27·2	21·2	31·2	26·2	27·0
December	27·8	24·0	24·0	29·0	27·5	21·0	18·0	23·0	24·0	21·2	24·0
Means ..	32·0	32·1	34·6	37·7	35·4	31·8	31·1	28·9	31·1	31·3	32·4

The lowest temperature of the air at Blackheath –

In 1880 was	January	15·0,	being	17	lower than at Sarona.	
1881 „	January	15·0	„	24	„	„
1882 „	December....	24·0	„	10	„	„
1883 „	March	24·0	„	11	„	„
1884 „	November	25·2	„	6·8	„	„
1885 „	December....	21·0	„	17·0	„	„
1886 „	January	15·0	„	22·0	„	„
1887 „	January	16·0	„	16·5	„	„
1888 „	February	17·0	„	20·0	„	„
1889 „	March	17·0	„	21·0	„	„

Thus the minimum temperature at Blackheath has occurred

Four times in January.
Once in February.
Twice in March.
Once in November.
Twice in December.

In the 10 years the temperature has been as low as 15° on three occasions, all in January; once the reading was 16° in January, and twice 17°, once in February and once in March.

By comparing the numbers in Tables III. and IV. it will be seen that without exception, those at Sarona, Table III., are all larger than those at Blackheath on Table IV. The excess in—

January	has varied from	1·0	in 1884	to	28·0	in 1886.
February	„	8.7	„ 1880	„	25·0	„ 1888.
March	„	7·0	„ 1880	„	25·0	„ 1889.
April	„	7·9	„ 1880	„	22·5	„ 1888.
May	„	9·0	„ 1882	„	21·5	„ 1885.
June	„	8·5	„ 1882	„	17·2	„ 1886.
July	„	11·5	„ 1881	„	22·0	„ 1888.
August	„	16·0	„ 1882	„	24·2	„ 1889.
September	„	4·5	„ 1883	„	28·5	„ 1885.
October	„	16·0	„ 1885	„	33·0	„ 1887.
November	„	9·8	„ 1888	„	31·8	„ 1887.
December	„	2·0	„ 1889	„	23·0	„ 1887.

The greatest difference are in the winter months; the largest, 33·0, in October, the next in order, 31°8, in November.

The mean of the 10 differences show the mean excess in each month over the minimum at Blackheath are—

January	16·2
February	15·9
March	14·4
April	13·8
May	14·9
June	14·2
July	16·6
August	19·0
September	20·3
October	23·4
November	20·3
December	16·5

These numbers agree with the differences between the numbers in the last column of the two preceding tables.

TABLE V. shows Extreme Monthly Range at *Sarona* in every month.

Months.	Years.										Means of 10 Years.
	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	
	°	°	°	°	°	°	°	°	°	°	°
January ..	31·0	40·0	38·0	39·0	39·0	30·0	27·0	45·5	39·0	30·0	35·9
February..	46·0	34·0	44·0	31·0	24·0	31·0	39·0	40·0	36·0	39·0	36·4
March ..	49·0	47·0	45·0	62·0	37·0	52·0	44·0	52·0	58·0	55·0	50·1
April ..	53·0	49·0	44·0	55·0	51·0	45·0	48·0	54·0	43·0	58·0	50·0
May ..	53·0	51·0	41·0	51·0	49·0	50·0	38·0	53·0	45·0	50·0	48·1
June ..	36·0	43·0	33·0	30·0	39·0	35·0	55·0	31·0	33·0	41·0	37·6
July ..	29·0	29·0	27·0	25·0	35·0	22·0	28·0	27·0	29·0	27·0	27·8
August ..	25·0	39·0	25·0	27·0	27·0	26·0	26·0	28·0	26·0	23·0	27·2
September	45·0	29·0	35·0	48·0	25·0	30·0	35·0	29·0	27·0	28·0	32·1
October ..	39·0	35·0	39·0	41·0	45·0	47·0	41·0	43·0	47·0	42·0	41·9
November	44·0	40·0	47·0	35·0	32·0	36·0	36·0	30·0	39·0	46·0	38·5
December	33·0	33·0	37·0	36·0	44·0	37·0	44·0	30·0	35·0	44·0	37·3
Means ..	40·2	39·1	37·9	40·0	37·3	36·7	38·4	38·5	38·1	40·3	38·6

These ranges, excepting in the month of June to September are generally large, the least and greatest range in each month are as follows :—

	The smallest was		The largest was	
	°		°	
In January	27	in 1886	45·5	in 1887.
February	24	1884	46·0	1880.
March	37	1884	62·0	1883.
April	43	1888	55·0	1883.
May	38	1886	53·0	1880, 1887.
June	30	1883	55·0	1886.
July	22	1885	35·0	1884.
August	23	1889	39·0	1881.
September	25	1884	48·0	1883.
October	35	1881	47·0	1885, 1888.
November	30	1887	47·0	1882.
December	30	1887	44·0	1884, 1886, 1889.

The smallest range in the month was 22° in July, 1885, and the largest was 62° in March, 1883.

TABLE VI. shows Extreme Monthly Range at *Blackheath* in every month.

Months.	Years.										Means of 10 Years.
	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	
	°	°	°	°	°	°	°	°	°	°	°
January ..	39·5	33·0	25·0	24·8	23·5	29·5	35·5	35·5	30·7	34·5	31·2
February..	30·6	23·9	28·5	21·6	27·5	31·5	26·0	32·5	33·5	38·8	29·4
March ..	39·0	35·6	35·0	30·3	40·9	33·0	39·9	34·5	32·5	41·0	36·2
April ..	34·7	38·1	31·0	38·3	39·0	44·0	34·0	37·7	40·5	33·3	37·1
May ..	55·3	42·2	37·0	48·5	44·9	44·3	44·2	36·9	43·2	43·2	44·0
June ..	41 4	41·9	31·5	41·5	37·5	45·6	40·0	39·6	39·5	39·0	39·8
July ..	33·5	48·5	30·0	40·5	37·6	39·6	41·1	44·5	33·0	33·5	38·2
August ..	34·8	39·3	33·0	36·6	45·0	34·5	40·0	44·2	42·0	43·2	39·3
September	46·0	30·0	33·5	21·7	39·2	39·0	42·7	36·0	31·8	44·1	36·4
October ..	36·2	34·0	38·7	27·8	27·0	27·0	37·5	37·0	40·8	28·5	33·5
November .	32·6	30·5	34·0	26·5	34·8	30·0	31·3	30·0	27·8	32·6	31·0
December .	28·0	28·0	32·0	24·5	27·0	28·2	36·0	27·5	33·0	31·8	29·6
Means ..	37·6	35·4	32·4	31·2	35·3	35·5	37·4	36·3	35·7	37·0	35·5

	the smallest was			the largest was		
In January	.... 23°5	in 1884	....	and 39·5	in 1880	
February	.... 21·6	„ 1883	....	„ 38·8	„ 1889	
March	.... 30·3	„ 1883	..	„ 41·0	„ 1889	
April	.... 31·0	„ 1882	....	„ 44·0	„ 1885	
May	.... 36·9	„ 1887	...	„ 55·3	„ 1880	
June	.... 31·5	„ 1882	....	„ 45·6	„ 1885	
July	.... 30·0	„ 1882	....	„ 48·5	„ 1881	
August....	.... 33·0	„ 1882	....	„ 45·0	„ 1884	
September	... 21·7	„ 1883	....	„ 46·0	„ 1880	
October	.... 27·0	„ 1884 and 1885		„ 40·8	„ 1888	
November	.... 26·5	„ 1883	....	„ 34·8	„ 1884	
December	.... 24·5	„ 1883	....	„ 36·0	„ 1886	

These least ranges are all smaller than those at Sarona, excepting in the months of June to September, when they are larger at Blackheath. The largest ranges at Sarona are all greater than at Blackheath, excepting those in May, July, and August.

By comparing the ranges in Tables V. and VI., it will be seen that the ranges at Sarona, in respect to the ranges at Blackheath, were in—

January, larger, excepting in 1880 and 1886.
February „ „ 1884 „ 1885.
March „ „ 1884.
April „ without exception.
May „ excepting in 1880 and 1886.
June, smaller, excepting in 1881, 1882, 1884, 1886, and 1889.
July „ without exception.
August „ „
September, smaller, excepting in 1882 and 1883.
October, larger, without exception.
November „ excepting in 1884, and was the same in 1887.
December „ without exception.

By taking the differences between the numbers on the last column of Tables V. and VI. the mean difference of range in each month is found, and is at Sarona in—

January, larger	than at Blackheath	by	....	4·7
February	„ „	„	....	7·0
March	„ „	„	....	13·9
April	„ „	„	....	12·9
May	„ „	„	....	4·1
June, smaller	„	„	....	2·2
July	„ „	„	....	10·4
August	„ „	„	....	12·1
September	„ „	„	....	4·3
October, larger	„	„	....	8·4
November	„ „	„	....	7·5
December	„ „	„	....	7·7

Thus the great ranges of temperature at Sarona in the months of March and April are remarkable, as also the small ranges in the months of July and August.

MOUNT HOREB.

By J. Stow, Esq.

The site of Mount Horeb is a question on which a difference of opinion exists, and so far there seem to have been no data to go upon by which its locality could be fixed with any degree of certainty, and yet, notwithstanding the doubt by which the subject is surrounded, it would almost appear that its position is indicated by the prophet Ezekiel: for although he does not in express terms refer to it, he does mention the Waters of Strife (which proceeded out of a rock in Mount Horeb) as forming the southern boundary line of a new division of the land among the twelve tribes, which has not yet taken place; and what is very remarkable, he supplies the exact measurement of each division, so that it is possible to ascertain the length of the land from north to south, the southern boundary of which extends to the Waters of Strife. It is not necessary here to enquire into the apparently preposterous idea of locating several tribes in a howling wilderness; it is sufficient for our purpose to take note of the measurements supplied.

In order to make plain what it is wished to demonstrate there are several particulars to be considered, viz.:—

1. The scale of measurement.
2. The central point from which the measurements are made north and south respectively.
3. The boundaries expressed by name.
4. The divisions of the land.
5. The way in which the correctness of the measurements may be tested.

First.—The scale of measurement. This we find in Ezek., xl, 5, is the reed.

The reed = 6 cubits.
The cubit = 1 cubit (18 inches) and a handbreadth (3 inches) or 21 inches.
The reed = $6 \times 21 = 126$ or $10\frac{1}{2}$ feet.

This measurement we find applied from first to last in all the measurements made.

Second.—The central point is the Sanctuary, *i.e.*, the Temple, *see* Ezek. xlv, 1 and 4, and xlviii, 9, 10 (mark particularly last clause of verse 10).

Thus we see the Sanctuary or Temple is the central point, and is situated in the centre of the most holy portion allotted to the priests, which is 10,000 reeds from north to south, and 25,000 from east to west.

From this point the measurements of the several divisions of the land commence.

Third.—The boundaries expressed by name are, first, the northern, (Ezek. xlvii, 15). Secondly, the southern boundary of the holy portion of 25,000 reeds square (Ezek. xl, 19); and lastly the southern boundary of the division allotted to the tribe of Gad, which is the southern boundary of the land. (Ezek. xlvii, 19, and xlviii, 28.)

The northern boundary is given Ezek. xlvii, 15, 16, 17. From this it seems pretty clear the line runs from the sea coast through Zedad westward. It will be seen when we come to measure the distance of the northern boundary from the temple by the sacred measure, that it agrees very nearly with the distance between the latitude of Zedad and that of the Temple.

The second boundary mentioned by name is Tamar, which is situated on the southern boundary line of the holy portion of 25,000 reeds or 20,000 reeds to the south of the temple (*see* Ezek. xlvii, 19.) (The expression "south side" here, as well as that of "north side," xlvii, 15, can only refer to the relative position of the land to be divided among the tribes, xlvii, 13, 14, in respect to the reserved portions set apart for sacred purposes.)

For it follows, if the southern boundary line of this holy portion of 25,000 reeds is situated 20,000 reeds from the Temple, that Tamar, which forms the northern boundary of that portion of the land allotted to the five tribes to the south (in rough sketch) must also be 20,000 reeds from it (*i.e.* the Temple), and it will be seen when the question of distances comes to be considered, that this assumption is not far from being correct.

The last boundary mentioned by name is the extreme southern boundary at the Waters of Strife in Kedesh; now the Waters of Strife are in Mount Horeb (*see* Exodus xvii, 6), therefore if it is possible to fix the correct distance of one we arrive at that of the other. Now we have given us the extent of the land lying between Zedad or its immediate neighbourhood in the north, and the Waters of Strife in the south, which it will be hereafter seen is, according to the measurements laid down, 288 miles 620 yards.

Fourth.—The division of the land. There are three principal ones, viz. :—

1st. The holy portion of 25,000 reeds square.
2nd. A portion to the north of the holy portion divided between seven of the tribes.
3rd. A portion to the south of the holy portion divided between the remaining five tribes.

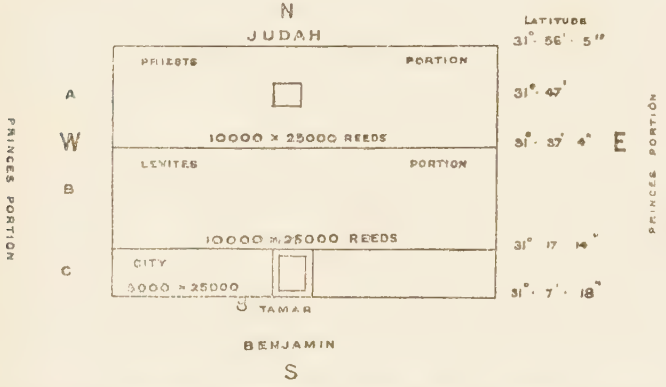
First, the holy portion. This is subdivided into three parts, viz. :—

A portion for the priests (in the centre of which is the Temple), measuring from north to south 10,000 reeds, from east to west 25,000 reeds. (Ezek. xlviii, 10).

A portion for the Levites to the south, of 10,000 by 25,000, (Ezek. xlviii, 13).

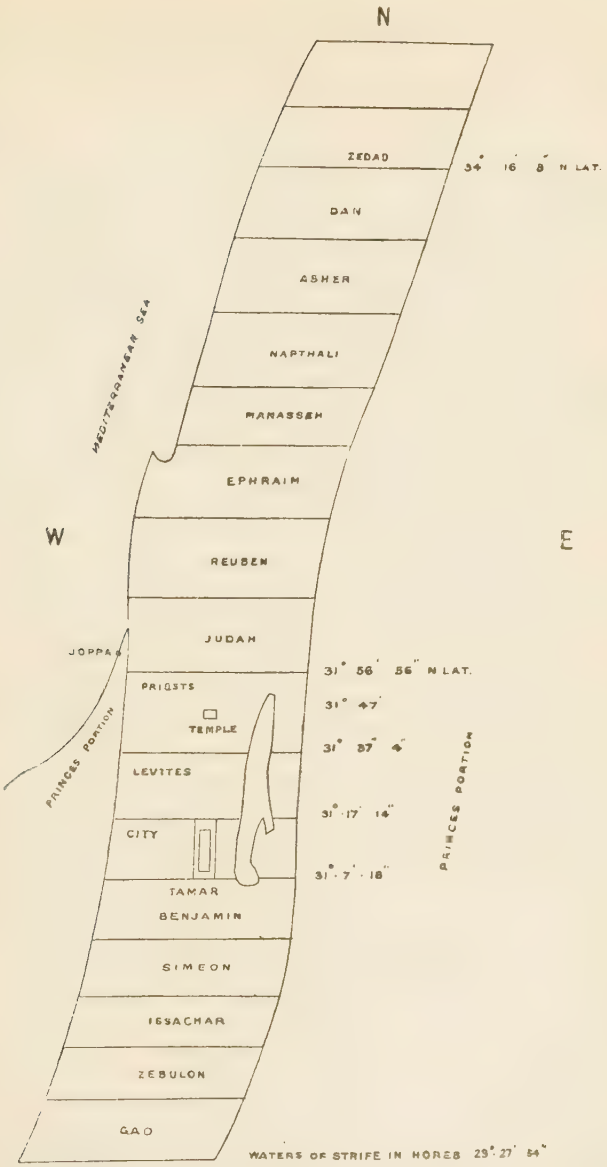
A portion for the City (Ezek. xlviii, 15), to the south of the Levites' portion of 5,000 by 25,000 reeds, making a square of 25,000 by 25,000 (Ezek. xlviii, 20) in the centre of the land reserved for special and holy purposes.

To simplify, a description of which a figure is given.



N.B.—The distance between the Temple and southern boundary is 20,000 reeds, which equals 39 miles 1,365 yards, or 39° 42″ of Lat. 31° 47′ − 39′ 42″ = 38° 7′ 18″, which is the latitude of the southern boundary of holy portion, and therefore apparently the true latitude of Tamar.

We now pass on to the next division of the land, extending from the northern boundary of the holy portion (Lat. 31° 56′ 56″) to the northern boundary of the land in the extreme north running from the sea eastward through Zedad (Ezek. xlvii, 15). This division is subdivided into seven lots between seven tribes (Ezek. xlviii, 1, 8), viz., Dan, Asher, Napthali, Manassah, Ephraim, Ruben, Judah. The lots are equal, and run each from the sea coast eastward for a distance of 25,000 reeds, and from north to south, a distance of 10,000 reeds—that is to say, there are seven subdivisions each measuring 10,000 by 25,000 reeds. This will be found to be so by a reference to Ezekiel xlviii, 8, 9. Now, in this passage the length of the most holy portion is given as 25,000 ; the breadth, *the same as one of the other portions.* But the size of the other portions is not given. But, on the other hand, the size of the most holy portion is very minutely given (Ezek. xlviii, 10). It is therefore quite plain that if the most holy portion is equal to one of the other portions, that they each must be equal to it. Now, the most holy portion (*i.e.*, the priests) is 25,000 reeds by 10,000, therefore that must be the size of the other portions respectively. The rough figures on the next page will explain the relative positions of several lots, as described in Ezek. xlviii, 1-29.



It will thus be seen the total length of the land from north to south is as follows, viz. :—

	Reeds.
Seven tribes to north of priests' portion, each 10,000 reeds ...	70,000
Holy portion	25,000
Five tribes to south of holy portion	50,000
Reeds	145,000

Of 10½ feet each equals 288 miles 620 yards.

Fifthly.—How can the correctness of these measurements be tested? That can only be done by comparing the distances from the central point to the several boundary lines named as measured by the sacred measure with the true latitude of the places named (unfortunately the writer has no means of ascertaining this). It can only therefore be shown what the latitudes of these boundaries should be according to the sacred measurement. The distance from the centre of the most holy portion to the extreme northern boundary is 75,000 reeds of 6 cubits of 21 inches each or 10½ feet. If, therefore, 31° 47′ be the correct latitude of the Temple, then the northern boundary of the land will be in Lat. 34° 6′ 55″. But Zedad is on the northern boundary (Ezek. xlvii, 15; Numbers xxxiv, 8), therefore this should approximate very nearly to the latitude of Zedad.

By the same process the distance of the Temple from the southern boundary of the holy portion of 25,000 reeds is 20,000. Assuming the correctness of this conclusion, 31° 23′ 26″, should be the latitude of Tamar. It therefore follows, if the measurement between the Temple and Zedad in the north, and the Temple and Tamar in the south, be correct, that we may expect, with some degree of confidence, that the measurements of the extreme southern boundary line, viz., the "Waters of Strife," will be correct also.

Between the southern boundary line of the holy portion and the southern boundary line of Gad's portion, there are five divisions of 10,000 reeds each, or 5,000 reeds of 10½ feet. Therefore 29° 43′ 59″ is apparently the latitude of the "Waters of Strife" in Horeb (Ezek. xlvii, 19; xlviii, 28).[1]

Rietfontein, Transvaal,
June 13th, 1890.

[1] There is an error in the plate due to a miscalculation which the author has corrected in the text. The true latitude of Sinai is 28° 32′ N. Zedad is placed by Robinson 34° 22′. Latitude 29° 44′ is near 'Akabah, and latitude 31° 23′ near the south end of the Judean chain of mountains.

C. R. C.

QUOTATIONS OF PSALMS.

By Major Conder, R.E.

In answer to correspondents, who desire to know the details as to quotations of Psalms, and of the New Testament, on the Byzantine monuments of Palestine, it may be convenient to give those collected by Waddington, to be added to the two already mentioned, in the Memoirs and in the *Quarterly Statement*.

(1) Waddington, No. 1,960 from Jimrîn near Bostra ; also from the Monastery of Job in the Haurân (No. 2,413 a).

Αὕτη ἡ πύλη τοῦ Κ(υρίο)υ δικαιο(ι) εισελέυσονται ἐν αὐτ(ῆ). Psalm cxviii. 20.

This is the same that I found repeated on a lintel stone in the ruins of Kh. Khoreisa (Memoirs vol. iii, p. 356). The ruins of a chapel were found to which it appeared to belong. The site is on sheet xxi, not far from Hebron.

(2) Waddington No. 2,068, from Umm el Jemâl near Bostra.

Εὐχὴ Νουμεριανοῦ (καὶ) Ἰωάννου Ἐκ γαστρὸς μητρὸς Θ(εὸ)ς ἡμῶ(ν) σὺ εἶ μὴ ἐυκαταλίπης +

The lxx version of Psalm xxi, 11, reads—

ἐκ κοιλίας μητρὸς μου Θεός μου εἶ σύ, μὴ αποστῇς ἀπ' εμοῦ

(3) Waddington 2,551 c. The well known text on the old basilica entrance to the great mosque at Damascus—

+ Ἡ βασιλία σου Χ'ριστ)έ βασιλία πάντων τῶν ἀιώνων καὶ ἡ δεσποτία σου ἐν παση γενεᾷ καὶ γενεᾷ.

This is Psalm cxlv, 13 with Χριστέ added.

(4) Waddington 2,650, from El Barah in Northern Syria.

Κ(ύριο)ς ποιμέν(ι) με + καὶ οὐδέν μοι ὑστερήσ(ει) +

This is Psalm xxiii, 1, with μοι instead of με.

(5) Waddington No. 2,651, from the same ruined town as the last.

Χριστὸ]ς ἀεὶ νικᾷ + Πίστις ἐλπὶς ἀγαπή + Ἐγίρει ἀπὸ γῆς πτωχὸν καὶ ἀπὸ κοπρίας ἀνυ ψοῖ πένητα.

Compare the lxx of Psalm cxiii, 7.

ὁ ἐγείρον ἀπὸ γῆς πτωχὸν καὶ ἀπὸ κοπρίας ἀνυψῶν πένητα.

(6) Waddington No. 2,652, from the same site.

Γένοιτο Κύριε τὸ ἔλεός σου ἐφ' ἡμᾶς + καθάπ (ερ ἠλπίσαμεν ἐπὶ σε) Psalm xxxiii, 22.

(7) Waddington No. 2661, from the ruined town El Has in Northern Syria.

Εὐλογημένος ὁ ἐρχόμενος εν ὀνόματι Κύριου Θεὸς Κύριος καὶ ἐπίφανεν ἡμῖν.

This is Psalm cxviii, 26–27 with ἐπίφανεν for ἐπέφανεν.

(8) Waddington No. 2,672, from Ruweika gives the exact lxx text of Psalm xci, 1, 2.

(9) Waddington No. 2,677 from Adana in Syria.

Μακάριος ἄνθρωπος ὃς (ἐλπίζει) ἐπὶ (Κύ)ριον κὲ οὐ μὴ ἀπω(λεῖται). Psalm xxxiv, 19.

(10) Waddington 2,654, from El Mujeliyeh in Northern Syria.

Τὸν Ὕψιστον ἔθου καταφυγήν σου· οὐ προσελέυσετε πρό(ς) σε κακά καὶ μάστιξ οὐκ ἐγγιῖ ἐν τῷ σκηνώματί σόυ.

This with the changes *τε* for *ται*, and *ἐγγιῖ* for *ἐγγιεῖ* is the lxx of Psalm xci, 9, 10.

(11) At Deir Sambil with the date 420 A.D. The first verse of Psalm xxiv occurs. (Waddington No. 2,663).

(12) At El Barah also (Waddington 2,648) Psalm iv, 8 is given in a manner differing slightly from the lxx, probably because all the words could not be crowded in. The Doxology is also added with a cross. This text was copied by De Vogüe as follows :—

Ε(δω)κάς μοι εὐ φροσ)ύνην εἰ(ς) τὴν καρδίαν μου. + Ἀπο καρπῶν σίτου καὶ οἴνου καὶ ἐλλέου ἐνεπλήσθημεν ἐν ἰρηνῃ.

In this rendering *μοι* is additional ; *ἐλλέου* is a bad spelling for *ἐλαίου*, which should be followed by *αὐτῶν* : *ἐνεπλήσ(θημεν* stands for lxx *ἐπληθύνθῆσαν* ; and *ἰρήνῃ* for *εἰρήνῃ*. The diphthongs of the Greek are often replaced by single shorter vowels in the Syrian texts. The clause is unfinished, and should end *ἐπὶ τὸ αυτὸ κοιμηθήσο ται.* The text is written in three lines perhaps injured on the left ; the second begins *+ Ἀπο*, and the third *λεου*. The Doxology below is as follows :—

Δόξα Πατρὶ καὶ Υἱῷ καὶ ἁγίῳ Πν.

This is probably a text of about 417 A.D.

(13) Waddington No. 2,646, from the same important ruined town of the 5th century, A.D.

+ Κύρ(ιος) φυλάξη τὴν ἴσοδὸν σου καὶ τὴν ἔξοδον ἀπὸ του νῦν καὶ ἕως τῶν αἰώνων Ἀμήν. Psalm cxxi, 8. The second word stands for *φυλάξει.*

Two passages of the New Testament also occur.

(14) Waddington No. 2,635. "The Lord hath said to us 'I am the God of Abraham, Isaac, Jacob, our God not of the dead,'" which is contracted from Matt. xxii, 31, 32, and not a textual copy. This is found at Salamiyeh in the region of Palmyra.

(15) Waddington No. 2,647, from El Barah is a fragment + "glory in the highest (to God) and on earth peace" (Luke ii, 14). I think these are all the texts of the kind in Waddington's volume. At Gara has been found on a monument of stone the verse "The Earth is the Lord's and the fulness thereof."

EARLY AKKADIANS IN LEBANON.

By Major Conder, R.E.

In a recent paper for the Victoria Institute, Mr. T. G. Pinches, M.R.A.S., of the British Museum, treats of the Akkadian inscriptions of King Gudea, at Tell Loh, dating about 2,500 B.C. The following important passage has been translated.

"When Gudea was building the temple of his god Ningirsu, Ningirsu subjected all things to him, from the upper sea to the lower sea. In Amanus, the mountain of cedar, he has cut and caused to be brought from the mountain, cedar trees whose length was 70 cubits, cedars whose length was 50 cubits, box trees whose length was 25 cubits. With this wood he made various parts of the temple."

Stores were also brought from Phœnicia, and diorite from Makan generally supposed to be Sinai.

This passage indicates an Akkadian invasion of the Lebanon in very early times, and if Makan be correctly identified (and Mr. Pinches agrees with Lenormant on this point), all Palestine would, even before Abraham's time, have been known to, and probably colonised by the Akkadians. The "upper sea" would appear to be the north-east part of the Mediterranean, and the "lower sea" the Persian Gulf. It will be noted that this historic statement agrees with the supposition that an early Akkadian population carved the Hittite monuments, while the language of Mitani,[1] in the 15th century B.C., forms a connecting link, Mitani being the northern part of Mesopotamia, east of the Euphrates and close to the Hittite borders, opposite to their capital of Carchemish. Hitherto this extension of Akkadian rule has not been historically demonstrated, and the new texts are of great value for the history of Palestine.

NOTE ON THE LACHISH CORNICE.

By Major Conder, R.E.

The cornice shown (pp. 26, 35) in Mr. F. Petrie's "Lachish Memoir," closely resembles that in the interior court of the Haram at Hebron. It is also similar to that on two tombs in the Kedron Valley. One of these tombs has been called "Egyptian" because of this cornice, but on the other (Absolom's tomb) this cornice occurs with Ionic capitals. The Hebron masonry being of the same class with the Herodian work at Jerusalem, I think there can be little hesitation in regarding this kind of cornice as belonging to the Greek or Greco-Roman age in Palestine. The date is therefore more probably the 1st rather than the 16th century B.C., and it may be placed even as late as the 1st century A.D. with great probability. This agrees with the Greek character of the pillar found in connection with the cornice.

Some of the buildings found at Lachish appear to me to be as late as 500 A.D.

[1] I hope shortly to publish a translation of this important letter of Dusratta in this language, which is an Akkadian dialect. The letter contains more than 500 lines of writing. Only a few scattered words have so far been explained.

THE HITTITE PRINCE'S LETTER.

By Major Conder, R.E.

The original text of this letter, having been published by Dr. Winckler, was under discussion last month between Mr. G. Bertin and myself. The death of this excellent Akkadian scholar has just occurred, and is a great loss to the study of the antiquities of Western Asia. Writing to me during his last illness, he says.

"I do not think that there can be any doubt about the language of this letter of Tarkondara; being neither Semitic nor Aryan nor Egyptian, it must, therefore, be Turanian."

To this conclusion, also, Mr. T. G. Pinches has been carried by the forms of the verbs, and this places the study of the Hittite language on a firm basis, showing its connection with Akkadian, and so with the still extant Archaic dialect of Turkestan and Mongolia.

CORRECTION.

On p. 71 of the January *Quarterly Statement*, 1891, I have made two mistakes. In the fourth line from the bottom read A.D. for B.C., and in the last line for "the lxx," read "the Hebrew of the Old Testament."

C. R. C.

NOTES ON THE QUARTERLY STATEMENT.

By Major Conder, R.E.

January, 1891. P. 13. The note bearing my initials must be corrected, I had not seen the copy of the inscription, which is not the Syriac text to which I referred.

P. 77. If it be the case that "*no Semitic scholar either challenged* or *contradicted*" the idea that Mr. T. Ballhatchet was a Phœnician, it was probably because the assertion was not worth contradicting. Dr. Max Müller long ago exploded the fallacy of supposing Phœnician names to be recognisable in Devonshire or Cornwall. We do not even know that the Phœnicians ever landed in England, and no Phœnician texts are known nearer home than Marseilles or Spain.

P. 84. Dr. Chaplin's Mask, from Er Ram, is mentioned in the "Memoirs," vol. iii, p. 438, and was shown to me by Dr. Chaplin. I have a sketch of it in my MS. notes. It can never have been used as a real mask, being so very thick; perhaps, however, it was fastened on to another stone. It seems to me that it might be of any date, from the 12th century, A.D., backwards.

THE SCULPTURED TOMB AT SHEFA 'AMAR.

By Herr Schumacher.

In the *Quarterly Statement* of January, 1891, p. 72, VII, Major Conder writes that I give an "imperfect sketch" of the sculptured tomb at Shefa 'Amr, and that I do not mention the inscription. In reply I beg to draw the attention of Major Conder to the fact stated in *Quarterly Statement*, October, 1889, p. 188, that the tomb I sketched and photographed was *recently* discovered, and, although situated *near* those given in the "Memoirs," is not the same of which he gives an inscription. I have visited all the tombs, together with my friend the Rev. Van Kasteren, and have also seen the one with the Greek inscription; but that I photographed was not discovered at the time of the P.E.F. Survey. It contains no characters but the α and Ω and a rude ornamentation work.

Haifa,
February 11*th*, 1891.

MILLO, HOUSE OF MILLO, AND SILLA.

By George St. Clair, F.G.S.

In a former paper I suggested, in a tentative way, that Millo might perhaps be the great causeway which crosses the Tyropœan at Wilson's Arch. I now make a different but a cognate suggestion, with more confidence, because I can support its probability by a little array of evidence. I am persuaded that Millo was a great defensive mound or dam crossing the Tyropœan, at the southern end of what Josephus calls a fortified ditch, instead of at its northern end ("Antiq." x, 8, 2). In fact it corresponds to the transverse wall which I have contended for, and the position of which I have tried to show.

It is possible that even the Jebusites had hit upon the device of making a dam, in some rude fashion, to bar the approach up the Tyropœan Valley. Sir George Grove, in the "Dictionary of the Bible," conjectures that it was the Jebusites who first built Millo, and named it by a word in their own language, because it is difficult to find a satisfactory Hebrew etymology for it; because, secondly, the Canaanites of Shechem also had a Millo (Judges ix, 6, 20); and lastly, because David seems to have found Millo already existing when he came to Jerusalem.

David having taken the stronghold of Zion, improved his new capital by building "round about, from Millo and inward" (2 Sam. v, 9). This suits very well the idea that Millo was a great dam which constituted the outer defence of the Tyropœan, and to a great extent of Zion itself. It is not unlikely either that the House of Millo was a castle at the end of the dam, on the Ophel Hill, which was adopted by David as a place

of residence, and so became the House of David. David may possibly have improved both the castle and the dam.

But it was Solomon who so strengthened this work as to deserve the credit of having constructed it. It was one of the great works for the accomplishment of which he made a levy upon all parts of the kingdom (1 Kings ix, 15). The nature of the work is indicated in 1 Kings ix, 27, "Solomon built Millo (and so) closed up the fissure of the City of David his father;" the fissure or cleft is the ravine, and the two works, of building Millo and closing the cleft, are either one and the same or are closely associated together. The rebuilding would no doubt extend to the House of Millo, which had become David's house; accordingly, before it can be begun another residence must be provided for Solomon's wife. Pharoah's daughter was brought up "out of the City of David unto her house which Solomon had built for her: then did he build Millo" (1 Kings ix, 24). The labourers employed upon the work were the children of Joseph, and their superintendent was Jeroboam, an Ephramite, probably already acquainted with the similar work at Shechem (1 Kings xi, 28). It is stated in the Septuagint that Jeroboam completed the fortifications at Millo, and was long afterwards known as the man who had "enclosed the City of David."

But although Millo was a mound or dam rather than a wall, we need not suppose it was a mere earthwork; it would most probably be faced with masonry, to ensure its preservation and increase its strength. The work was so well done that Jerusalem was never again attacked on this side, although previously this side was found the most vulnerable, both by David and by the children of Simeon and Judah in the days after Joshua.

Joash was assassinated at the House of Millo, going down Silla (2 Kings xii, 20, combined with 2 Chron. xxiv, 25). There has been as much obscurity about Silla as about Millo. Some have supposed it to be the same as M'sillah in 1 Chron. xxvi, 16,—a stairway at the west gate of the Temple. But the locality of this M'sillah is at one of the Parbar gates, north of Wilson's Arch, and can have nothing to do with Beth Millo. However, the M'sillah and the Silla are related in etymology and in meaning—for both of them are banks with stairways. Silla is the stairway at Millo itself: Joash was leaving David's house to escape the conspirators, and was being carried on a litter down the stairway. When Nehemiah, in his description of the walls, comes to Millo, as I understand him, he has to speak of the stairs of the City of David, and the stairway of the wall above the House of David (or Beth Millo), Neh. iii, 15, xii, 37. The word for stairs here is Maaloth.

Hezekiah, who was much concerned about the south-eastern part of the city, "strengthened Millo, the City of David" (2 Chron. xxxii, 5).

If we are to find a Hebrew etymology for the name מִלּוֹא (Millo), it seems to be a noun formed in the usual way by prefixing the letter M to a verb. There is the Aramœan intransitive verb לָוָא, equivalent to

the Hebrew לָוָה, with the meaning *to be inclined*, and among other meanings *to wind about*, *to twist*, and used concerning stairs as well as concerning serpents and garlands. Is it not something more than a coincidence that a regular Hebrew word for stairs is מַעֲלֶה, *Maaloth*, similar to Millo, though formed from the verb עָלָה?

As to סִלָּא (Silla), from סָלַל to heap up, to tower up,—it accords very well with all we can gather or guess about the great dam. Sollah was the mound which in ancient warfare was used in besieging a town. How likely it seems that some variant of it would describe a mound constructed for defensive purposes. It is worth noting that the writers of Targums express the Hebrew Sollah by the word Milletha, and that they use the same word Milletha to render Millo. It seems clear that to them Sollah and Millo were alike a mound, whether used for attack or defence.

If there is truth in this view about Millo, Millo might be found by sinking one shaft in the Tyropœan and driving a gallery north and south. And then would follow the discovery of the stairs and the sepulchres.

THE FULLER'S FIELD.

By George St. Clair, F.G.S.

In the days of King Ahaz, when Jerusalem was threatened by the allied forces of Rezin, King of Syria, and Pekah, King of Israel, Isaiah was commanded to "go forth (go outside the city?) and meet Ahaz, at the end of the conduit of the upper pool, in the highway of the Fuller's field" (Isaiah vii, 3). The upper pool here spoken of is believed to be the Virgin's Fountain, which is elsewhere the upper spring of the waters of Gihon, and where we find one end of a conduit which connects it with a lower pool at Siloam. But if this is what is meant, why is the spot not described shortly and plainly as En Rogel, by which name it was already known? (1 Kings i, 9). Surely it is not En Rogel itself which is meant, but the end of a channel or passage belonging to it, and yet not the end which terminates at the pool of the spring; nor the Siloam end either, else it would be so stated. Does it not refer to the top of the shaft and stairway of the Ophel Hill, which had been so long lost until rediscovered by Warren? This entrance was of course known to Isaiah, and known to the King. Being near the King's gardens, perhaps within their boundary, Ahaz may have been accustomed to walk there. The place spoken of is not really stated to be "*in* the highway of the Fuller's field;" for in the Hebrew text the word "in" is not found, and the word highway is not the only fair rendering of the Hebrew *M'sillah*. The text might be translated, Go and meet Ahaz at "the end of the

channel of the upper pool, the stairway of the Fuller's field." This is an exact description of the top of the Ophel shaft.

We recall the statement of Josephus, that when James the Just was thrown over the Temple wall, a fuller despatched him with his club. And we remember that in a cavern on Ophel, Warren found what appeared to be dyers' vats.

In the days of Hezekiah, the son of Ahaz, the stairway shaft is again spoken of. Sennacherib's officers have pitched their camp north-west of the city ; but desiring a conference with Hezekiah—who was probably living in David's house on Ophel—they came and "stood at the passage of the upper pool, which is at the staircase of the Fuller's field" (2 Kings xviii, 17). There they called to the King, and when Hezekiah deputed his Prime Minister, Secretary, and Recorder to represent him, these officers spoke from the wall.

The circumstances may seem to require that the wall should extend a little more southward than the wall found by Warren, but they appear to be good evidence that the Ophel shaft was outside the wall, and that the King's house was within shouting distance of the shaft, or at any rate that the Assyrian officers thought so.

But if *M'sillah* in this passage is not to be rendered stairway, nor highway, but rather "mound" (*see* paper on Millo and Silla), then it suggests that the dam which crossed the Tyropœan had its eastern termination not far from the Ophel shaft. In that case the Fountain Gate of Nehemiah would be at the south-east angle of Jerusalem, where the shortest path leads off to Siloam Pool. (A man knows best himself the weak points of his own theories, and I have been surprised that no critic should have pointed out that the Fountain Gate should more naturally be looked for here, rather than at the point assigned it in my paper and plan, April, 1889).